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Korea's growth rapid and solid

By Matt DeLorenzo
LOS ANGELES REPORTER

Hyundai's success in Canada and more recently in the United States underscores the speed with which Korea has entered the mainstream of worldwide auto manufacturing.

Already there is talk of another Japan, a thought not too comforting to manufacturers on both sides of the Atlantic.

From a total of about 9,200 automobiles produced in 1974 to a Korean government estimate of 1.2 million units annually by 1990, the growth is remarkable indeed for a country that did not begin building cars in the form of knockdown kits from Japan until the early 1960s.

Despite the rapid growth, it is difficult to conceive the Koreans reaching the scale of the Japanese industry, which produced 12 million cars and trucks in 1985.

A number of factors will limit the scale of the Korean industry, including the current restrictive worldwide trade climate, the number of Korean manufacturers and how they are organized, increased competition from other lesser developed countries and the size and scope of the Korean economy itself.

Many comparisons have been made between Japan and Korea. However, the differences between the two stand out starkly.

Korea, a debtor nation, had a trade deficit of about $1 billion in 1985 and foreign debt is $46 billion, which is nearly half its gross national product. It expects to have a trade surplus of $600 million to $1 billion this year.

Japan, on the other hand, with a GNP six times that of Korea, enjoys a trade surplus with the rest of the world of about $34 billion and is the world's largest creditor nation.

Korea's per capita income is about $2,000, compared with Japan's $13,000, and Korea's population of 35 million is about a third of Japan's.

Japan has a domestic market of about five million new cars and trucks annually and total registrations of more than 44 million vehicles or more than 300 for every 1,000 persons.

Korea's domestic market, on the other hand, is miniscule in comparision, with 1985 sales of 157,000 passenger cars and just over 100,000 commercial vehicles. According to government firgures, Korea today has only 15 vehicles per 1,000 population, which is behind other less-developed countries such as Taiwan at 26 per 1,000, Mexico at 79 and Brazil at 85.

see KOREA, page 20

Asia Motor Co., Kwangju, trucks and buses. Daewoo Group, Pusan, trucks and buses. Daewoo Motors, Pupyong, joint car-making venture of Daewoo Group and General Motors. Dong-A, Pyungtaik, trucks and buses. Hyundai Motor Co., Ulsan, cars, trucks and buses. Keo-Ha Co., Pusan, utility vehicles. Kia Industrial Co., trucks, with car production beginning in 1987.

CHARLOTTE J. WINTER

KOREA: A RISING POWER

A special report

Latest, hottest topic: Pacific Rim . . . . . Page 20
Trade threatens economic miracle . . . . . Page 22
Domestic market up with exports . . . . . Page 22
Korea, Inc. takes on Japan, Inc. . . . . Page 22
Parts exporters plan for growth . . . . . Page 26
A country unified by Northern threat . . . Page 30

Domestic sales fall in first half; 4 pct. below '85

By Jenny L. King
DETROIT REPORTER

Despite consumer incentives, domestic new-car sales in the first half of 1986 missed the year-ago mark by 175,000 units, or 4.1 percent. June sales, however, were up 8.81 percent over the 1985 total.

Domestic sales January through June totaled 4,139,979, off 4.05 percent from 4,314,667 last year. Import first-half sales were up 14.56 percent, to 1,508,744 from 1,316,960. The industry's first half was up 0.30 percent, to 5,648,723 from 5,631,627.

Imports claimed 26.71 percent of the market.

In June, the domestic automakers reported sales of 736,261, up 8.81 percent from 676,675 last year. The import total reached a record 265,297, up 6.73 percent from 248,561. Imports represented 26.49 percent of the total market of 1,001,558.

In the first half, Honda and Nissan were the only domestics to top their 1985 sales. General Motors was down 2.57 percent, to 2,373,738 from 2,436,247. Ford Motor Co. reported sales of 1,006,493, off 6.97 percent from 1,081,872. Chrysler Motors slipped 5.99 percent, to 567,651 from 603,818.

American Motors plunged 43.61 percent, to 35,206 from 62,430. Honda was up 11.29 percent, to 92,430 from 83,051. Volkswagen reported first-half sales of 39,091, off 2.18 percent from 39,962. Nissan was up 248.15 percent, to 25,370 from 7,287. Nissan began selling U.S.-built cars in the spring of 1985.

GM sales for June were up 9.39 percent, to 417,292 from 381,471. Ford reported sales of 179,301, up 3.02 percent. Chrysler soared 21.08 percent, to 109,052 from 90,065.

AMC's June sales of 5,726 were off 36.84 percent from 9,066. Honda reported any-month-record sales of 18,220, up 50.07 percent from 12,141 in 1985. VW was up 5.82 percent, to 6,453 from 6,098, while Nissan, undergoing a model changeover, had sales of just 217 units in June compared with 3,759 in 1985.

Analysts tend to agree that the die is cast: The domestic makers will have to continue to offer incentives to sell cars during the second half of 1986. "Consumers wait for them. They are part of the market now," said Jean-Claude Gruet, of Salomon Brothers.

PaineWebber Inc. auto analyst Ann Knight said the record-low interest rates haven't had the desired sales impact because few customers want loans for less than 48 or 60 months.

Big losses hit makers in Mexico

By Stephen Downer
STAFF CORRESPONDENT

MEXICO CITY — Oscar Marx III, who is being called back to the United States after three years as president of Ford of Mexico, said that Mexico's six automobile makers have lost a total of about $1.5 billion in the last five years.

"What is particularly disturbing is that the losses continue," he said in an interview. "The motor companies are beginning to question whether Mexico will be as profitable as it has been historically."

see MEXICO, page 58

Mojave concept car, designed at Chrysler Pacifica advance styling center

Chrysler tries 'checkerboarding'

By Dave Zola
DETROIT REPORTER

Chrysler Motors is counting on a new product design/marketing philosophy to help put it one step ahead of the competition.

"Most of our efforts the last few years have been on getting our quality up," said Thomas C. Gale, vice president, product design. "Now, we're in a position to get more competitive in our development programs."

The result is the beginning of a design/marketing strategy the automaker calls checkerboarding, a concept whereby some vehicles will be sold under just

see DESIGN, page 57

AMC paying 'wheel tax;' plant periled

By Mary Connelly
DETROIT REPORTER

American Motors last week spent $2 million as the first payment for concessions made by workers at its Toledo Jeep plant — a move which could signal the death knell of the Ohio operation.

AMC said UAW workers at the plant refused to "budge" from their position that concessions be repaid via a so-called "wheel tax" based on AMC's North American production. AMC estimates that would cost $27 million over three

see TOLEDO, page 57

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ault begins
nised layoffs
Page 2

Shakeout begins
in heavy trucks
Page 3

Bertone shows
prototype in U.S.
Page 6

Long-promised layoffs begin as Renault reorganizes

By Jean-Jacques Renaux
SPECIAL CORRESPONDENT

PARIS — Renault last week announced that 850 persons will be laid off at the old Billancourt plant and at the company's headquarters in Paris.

These are the first straight layoffs announced by Renault since Georges Besse, president-director general, said a year ago that he planned to reduce the workforce by 21,000.

The reduction should be achieved by the end of this year, but it is becoming clear that early retirements and financially encouraged voluntary departures will not be nearly enough to reach the goal. More layoffs are expected toward the end of the year.

In other moves, Besse is seeking $2.2 billion to $2.8 billion in additional capital from the French government, Renault's sole stockholder, and sales chief Jose Dedeurwaerder plans extensive marketing changes for the 1987 model year, including a five-year rust warranty on cars sold in France.

The Billancourt plant, built on an island in the River Seine at the gate of Paris, is the company's oldest plant — it is in the place that Louis Renault started his car business in 1898.

It is also a symbol and a stronghold of the communist CGT union. For some time the closing of the plant has been a sensitive issue at Renault, and the decision was always delayed.

At Billancourt, Renault makes the recently introduced Express light truck, some Renault 5s and most of the 25-year-old little Renault 4s (still produced at the rate of some 575 units a day in several plants in France, Spain, Portugal and Yugoslavia).

At the beginning of the summer, Renault closed the engine shop at Billancourt after discontinuing the tiny 850-cc, three-bearing, four-cylinder powerplant. More than 10 million units had been produced since 1948, and the engine powered most of the small Renault cars through nearly four decades.

In announcing the layoffs, Besse said that the company's turnaround is on schedule. A year ago, the group was losing some 1 billion francs a month ($140 million at current rates). Now, the financial loss is about half that, some 500 million francs per month, Besse said.

Renault could reduce its corporate loss by 50 percent for the full year, he said. Last year, Renault announced a loss of 10.93 billion francs.

The state-owned company is expected to receive a substantial injection of new capital from the French government.

"We cannot refer to it as a capital increase," a Renault representative said, "since we actually have no capital left.

"If Renault didn't have a very special stature as a state-owned group since a law enacted in 1945 by Gen. de Gaulle, we would have gone bankrupt by now."

Said a French secretary of state: "It is a well-known fact that Renault was always undercapitalized."

According to sources in the industry and close to the administration, Besse asked for 16 billion to 20 billion francs ($2.2 billion to $2.8 billion). It is assumed he will get a substantial part of it, but maybe not in one big bailout package.

Jacques Calvet, president of PSA, the privately owned maker of Peugeot and Citroen, reportedly considers such massive aid to Renault potentially "unfair."

Yet, he agreed with the principle in an interview with the French magazine L'Expansion. Said Calvet: "It is the state's duty to determine whether the proposed (turnaround) plan is convincing enough, and whether the figure asked for is of a sensible size and would not distort the competition."

For the 1987 model-year, Dedeurwaerder announced a major marketing overhaul with many new services offered to dealers and customers. The model year traditionally begins July 1, even if the main product changes won't be introduced before the Paris Motor Show in October.

Beginning July 1, every new Renault sold in France will carry a five-year rust warranty. The warranty will be extended to some other markets, depending upon local competition in the warranty field.

Renault said that after three years of financial losses, most of its French dealers have been showing a profit since mid-1985.

The distribution network in France has been trimmed from 580 main dealerships at the beginning of 1984 to 473 at the beginning of this year.

Dedeurwaerder has initiated a large-scale modernization of the distribution system in France, using some ideas he brought with him from the United States. For instance, the dealers are beginning to work with computer terminals linked to the company and its various plants.

Several training systems are also provided for dealers, salespersons and service people.

Renault last week showed pictures of the Nevada, a station wagon derived from the 21 sedan. The Nevada (Automotive News, June 30) will bow at the Paris Motor Show in early October and go on sale throughout Europe during the fall.

The wagon has an extended wheelbase, making it 7 inches longer than the sedan. The Nevada will be exported to the United States to complement the Medallion sedan, which American Motors is scheduled to introduce during the second half of next year.

It will use the same engines as the Medallion sedan: a 2.2-liter four and a 2.8-liter V-6, both with electronic port injection.

Irish adoption, GM-style

DUBLIN — General Motors has instituted an "adopt-a-company" program here to curb unemployment.

The idea was dreamed up by GM's Irish boss, Arnold O'Byrne. GM once manufactured Opels in Ireland, but now has only a marketing operation here.

After a recession began in 1981, unemployment in Ireland reached 18 percent.

O'Byrne decided to help an unemployed couple, Philip and Ann Noonan, and said that GM would provide all sorts of aid, short of cash. The Noonans started Nice Ideas, a small manufacturing operation turning out chess sets in metal, based on Celtic designs going back to the 12th century.

The Noonans have a small plant near GM in Dublin. GM executives, marketing people and accountants visit the Nice Ideas plant to help with specifics, and Nice Ideas people visit GM, even to use the photocopier.

The GM aid to the Noonans is limited to one year and will end shortly. After that, GM will look for another company to adopt. O'Byrne has asked the country's top 100 companies to do likewise.

Correction

The June 30 issue of Automotive News incorrectly reported the compensation for 3M Chairman Lewis M. Lehr.

Lehr earned $828,814 in cash compensation for 1985 which ranked him 30th on the list rather than first as reported. The $5.2-million figure reported represented the cash compensation paid to 3M's top executives as a group.

The revised list ranks Chrysler Chairman Lee Iacocca as the highest paid automotive executive.

The change brings the total cash compensation — salary and bonus combined — for the 170 executives of automotive and supplier companies to $100.2 million, not $105 million as reported. It also changes the average compensation of the executives to $589,587 for 1985, up 3 percent from $571,208 in 1984.

Premiere of Premier
An American Motors designer puts the finishing touches on the logo of Renault Premier, the company's new intermediate line. The cars will be produced at the new Bramalea, Ontario, assembly plant for the 1988 model year.

French sourcing likely for next Alliance/Encore

By Jean-Jacques Renaux
SPECIAL CORRESPONDENT

American Motors and Renault will stay in the market segment of the current Alliance and Encore after the models are phased out in 1987 or 1988. But their replacements will probably be imported from France rather than made in America.

Renault representatives have not confirmed it, but they do not deny that this plan fits best into their picture.

The current Alliance and Encore models are now produced in Kenosha, Wis., at a declining rate of some 350 cars a day, down from a peak rate of more than 1,100 daily. Production can go on at that rate for some time while the plant is tooling to produce up to 150,000 Chrysler cars a year.

But once the Chrysler operation is running at full rate, there will be no significant capacity left in Kenosha to launch any new AMC/Renault volume model.

"Of course, it can be assumed that we will stay in that market segment," a Renault spokesman said. "With the Jeeps, the imported Medallion and the Bramalea-made X58 carrying the nameplate Premier, we will cover about 60 percent of the U.S. market. It would certainly not be a good idea to drop a market segment like that of the Alliance and Encore."

According to Renault, President-Director General Georges Besse has stressed that he wants Renault to stay with AMC in the United States, marketing cars of three sorts: truly American-made cars (the Jeeps), cars made in America with some imported content (such as the forthcoming Bramalea X58 and X59), and cars imported from Europe (such as the forthcoming Medallion).

It would be an obvious move to source one more new car from Europe to replace the Alliance and Encore, so far as the market there and the exchange rates make it profitable.

It would help Renault increase its production in France, thus reducing the between the company's current production and its break-even point.

Renault will unveil its replacement for the Renault 9 and 11 this fall at the Paris motor show.

AMC-Chrysler pact is hailed by Cappy

By Mary Connelly
DETROIT REPORTER

In the wake of the unprecedented announcement that American Motors will likely begin building cars for Chrysler Corp. in 1987, AMC President Joseph Cappy said the company would like to become a leader in similar innovative joint ventures.

AMC and Chrysler announced last week that a memorandum of understanding has been signed under which AMC is to assemble large, rear-wheel-drive cars for Chrysler at its Kenosha, Wis., assembly plant. AMC Alliance and Encore models will be simultaneously produced at the plant.

It will cost $13 million to $15 million to retrain the Kenosha workforce and launch production at the under-utilized plant in February, 1987, Cappy said in an interview with Automotive News. State and federal aid is being sought to help pay for training.

Cappy said about 200,000 cars are expected to be produced over the 2½-year life of the contract. The agreement carries an extension option. Renewal will be based on market demand for the Chrysler Fifth Avenue, Dodge Diplomat and Plymouth Gran Fury.

The two companies are also discussing the possibility of Kenosha doing some stamping for those cars, Cappy said.

AMC is also interested in discussing production of other components for Chrysler, he said.

Cappy indicated that AMC is actively seeking similar ventures with other manufacturers.

"Frankly, we've been kicking around this thing for some time now," he said. "There have been other possibilities in the past that didn't pan out."

He said the company is talking to "quite a few people" and has received an inquiry from an Asian company he declined to specify.

Even with the assembly of the Chrysler models, AMC has excess capacity in its Kenosha and Brampton, Ontario, plants, he said.

In addition, AMC "for a price" would be willing to expand capacity at its $675 million plant under construction in Bramalea, Ontario, Cappy said. It will begin producing the Renault Premier, a new line of intermediate size cars, in the summer of 1987.

Stating the "possibilities are endless," Cappy cited joint assembly operations such as the General Motors-Toyota plant and joint development of product or components.

Cappy said an agreement with Chrysler would boost AMC's financial and economic outlook.

AMC lost $125 million in 1985 and posted a net loss of $19 million in the first quarter of 1986.

Chrysler is expected to make a fixed payment to AMC and subsequent variable monthly payments based on production.

The large M-body cars expected to be produced by AMC are being moved out of Chrysler's St. Louis II plant for the launch of a second minivan plant. Continued demand for the cars, coupled with constrained assembly capacity, led Chrysler to the deal.

Chrysler has said it is running its domestic assembly plants at the equivalent of 118 percent of straight-time capacity and has no plans through 1990 for an additional domestic assembly plant.

Cappy said there are no talks being held regarding production of additional Chrysler models.

Employee training is a "required element" for finalization of the AMC-Chrysler agreement.

Cappy said he is "very confident" the state of Wisconsin will approve training money. AMC also is seeking federal training aid.

An estimated 3,200 hourly and 300 salaried employees are expected to be recalled from layoff at AMC's Kenosha and Milwaukee plants if the agreement is finalized.

UAW Local 72, which represents workers at Kenosha, agreed to reduce job classifications as an enticement to win the Chrysler work.

Chevy sets timetable for new small cars

By Michelle Krebs
FINANCIAL EDITOR

Chevrolet Motor Division will introduce the second-generation Sprint, Spectrum and Nova in 1989 and 1990.

General Manager Robert Burger said the new cars will be introduced over a two-year period.

"I have been urging the Chevrolet dealer body to use their selling muscle and do the very best job they can with today's products to give us a new owner base to spring from when we launch the new vehicles," Burger said.

By the time the second-generation models arrive, Burger said, Chevrolet would like to be importing 200,000 Spectrums a year from its Japanese partner, Isuzu. Increased volume of the Suzuki-built Sprint hinges on General Motors and Suzuki building a plant in Canada. An announcement on those plans is expected this month.

Chevrolet today is limited to 80,000 Spectrums and 60,000 Sprints because of self-imposed restraints by the Japanese from April 1, 1986, to March 31, 1987.

In the meantime, Burger said, the imported Chevrolets will be updated, particularly in terms of powertrains. The Sprint will have a turbocharged engine for 1987 as will the Spectrum in mid-1987.

Burger said the Sprint, Spectrum and Nova will fill the void left by the Chevette, which will disappear from Chevrolet's product line after the 1987 model year.

"The Chevette, frankly, is a car that in some degree gets in the way of the Sprint and Spectrum, particularly at retail," Burger said. "In the fleet end of the business, the Chevette is still considered one of the best for daily rental. For this year, that's where the bulk of the sales are."

Burger said that in 1987, Chevrolet will push Spectrum as the fleet replacement for Chevette in the daily rental business.

Chevrolet is still on target to sell 1.81 million cars and 1.29 million trucks in the 1986 model year, Burger said. That compares with sales of 1.60 million cars and 1.25 million trucks sold in the 1985 model year. Burger expects Chevrolet's share of the new-car market to be 15.8 percent for the model year.

Included in Chevrolet's 1986 totals are projections to sell nearly 750,000 small cars — 265,000 Sprint, Spectrum and Nova models combined, up to 70,000 Chevettes and up to 400,000 Cavaliers.

Some observers say Chevrolet has too many small cars, causing confusion among consumers.

"We have enough," Burger said. "I don't think we have too many. Every car that we have in the subcompact segment is a vehicle that has found itself a niche in the marketplace.

"We can handle Sprint, Spectrum, Nova and Cavalier in total and not let any one of them get in the way of the others," he added.

Chevrolet touts the Sprint as the highest mpg car in the United States; its advertising boasts that the car can run from California to New York on $66 worth of gas.

Burger said Chevrolet could sell more if it could get more.

Not so with the Spectrum. "That piece of the subcompact pie is a little more blurred, not quite as easily identified," he said. "I wouldn't say that we struggle there, but we have to keep the heat on."

AUTOMOTIVE NEWS/JOE WILSSENS

Burger says Chevrolet has the right number of small cars

Burger said a number of good vehicles with many of the same characteristics compete in Spectrum's category.

Burger said Chevrolet relies on its dealers to push the car and has given the car a disproportionate share of attention this year compared with last.

Cavalier, Burger predicted, will be the the No. 1 or No. 2 best-selling car in the United States. "It's well accepted from the East to the West and the North to the South," he said. "And it poses no threat to Nova sales, and neither does the Nova pose any threat to Cavalier sales."

Sales of the Nova, the Corolla derivative built at the GM-Toyota joint-venture plant in Fremont, Calif., are doing better than they did earlier.

"The Nova is another car that has found itself in a niche alongside the imports," Burger said.

Burger said Chevrolet cut back on advertising after the Nova's introduction, and that was a mistake.

"We assumed that it was the product of a joint venture of two very successful companies in the automobile business and that *that* — in and of itself — would ensure its success," he said.

Chevrolet since has shifted its advertising from the joint-venture and Toyota angle to "ask the woman or man who owns one."

Burger said the division began to treat Nova as a Chevrolet. When interest-rate support was put on Cavaliers, Spectrum and the rest of the Chevrolet line, it also was put on Nova, and that boosted sales.

Next leading compacts Chevys, vows Burger

By Michelle Krebs
FINANCIAL EDITOR

Chevrolet General Manager Robert Burger predicts the all-new Corsica and Beretta models, to be introduced in the spring of 1987, will be the best-selling cars in the compact segment in 1988.

He said Chevrolet will sell between 425,000 and 450,000 of them during the 1988 calendar year.

The Corsica four-door sedan and the Beretta coupe, codenamed L-body cars as part of the GM25 program, are compacts exclusive to Chevrolet. Renovated plants at Linden, N.J., and Wilmington, Del., will assemble the cars.

"The Corsica and Beretta put us right smack back in the compact market in which we were so successful with the Citation," Burger said.

Chevrolet feels it abandoned the segment more than a year ago when it dropped the X-body Citation because of bad publicity and litigation concerning its quality. Chevrolet considers the Cavalier a subcompact, not a compact.

Because of the difference in their personalities, Corsica and Beretta will be marketed as separate models, even though they are built from the same platform.

Burger likens the Beretta to the Monte Carlo coupe. The Beretta was designed and built as a sporty coupe, not a derivative of a sedan. Burger expects it to attract the Chevrolet Camaro- or Ford Mustang-type buyer.

"It will appeal more to the sporty end. It probably will have a lot of interaction with some cars within General Motors and, most important, those offered by the imports," he said.

The Corsica is a roomy four-door, four-passenger model.

"The market is pretty well defined — demographically and psychographically," he said. "It's a large market, and it has a certain individual within it, so we'll just take the car right after the compact-type buyers, whether they're Citation owners or whether they're owners of the same size cars offered by competitors.

"If tradition holds," Burger added, "the four-door will do much better as the cars settle in. Initially, the coupe may take off a little quicker. I think it'll settle down in the 60-40 range in favor of four-doors."

Burger said the acceleration curve for startup at the two plants will be slow. However, he said he hopes the acceleration will be faster than that of the Nova, the joint-venture car made by GM and Toyota in Fremont, Calif., and sold by Chevrolet.

He said he believes Chevrolet will be very short of cars right after introduction. Full production is targeted for June 1987.

Japan sets European export cap

By Francis J. Gawronski
TOKYO BUREAU CHIEF

TOKYO — The Ministry of International Trade and Industry has officially urged Japanese automakers to abide by Japan's self-imposed "orderly export policy" in regard to shipments of vehicles to the Common Market.

Alarmed by the brisk rise in exports to the Common Market, MITI moved to head off possible friction with Europe over auto trade.

The request was made directly to representatives of the auto manufacturers because MITI expects Japan's car exports to the Common Market for April through June to be approximately 40 percent above last year's level.

According to export figures compiled by the Japan Automobile Manufacturers Association, cumulative shipments of all vehicles to the Common Market for the first two months of fiscal 1986 — April and May — totaled 211,796 cars, trucks and buses (112,442 in April and 99,354 in May).

That represents an increase of 61.7 percent over the 130,952 units (66,485 in April and 64,467 in May) exported the year before.

Through its administrative guidance policy, MITI has expressed concern about the possible spiraling escalation in shipments to the Common Market for the fiscal year ending next March.

MITI said a 10 to 15 percent increase in exports would be acceptable, tied to a projected 15 to 20 percent increase in annual auto sales in the Common Market.

However, if the current pace continues, the government fears the export volume will exceed an acceptable level in fiscal 1986.

In fiscal 1985, Japanese makers exported 6,848,493 units, of which 1,061,870 went to the Common Market, an increase of 15.1 percent over the year before.

Japan is maintaining a four-year, self-imposed export moderation policy for the Common Market and has been watching for any brisk rises in exports, especially in eight major trade products, including motor vehicles.

According to industry analysts, Japanese auto exports to the Common Market nations have been rising since last September as the car companies seek to make up for declining profits caused by the yen's appreciation.

Shoichiro Toyoda, JAMA president, said recently that "it is not necessary to reduce Japanese car exports to the Common Market countries."

INDEX

Auction reports	44-47
Automotive World News	33
Classified advertising	48-54
Editorial page	10
Engineering	16
Marketing and Media	55
Personnel	54
Production by makes	62
Registrations, car	42
Truck highlights	12

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Shakeout begins in heavy-truck industry

By Joseph Bohn and Rik Turner
AUTOMOTIVE NEWS STAFF

The heavy-truck industry is gaining momentum in its inevitable consolidation.

Several companies, including PACCAR, Freightliner and Mack, are reducing production capacity and/or laying off employees.

In addition to two permanent plant closures, PACCAR plans to consolidate the parts marketing operations of its Peterbilt and Kenworth divisions.

Effective Jan. 1, 1987, it will distribute and market parts for the two divisions from its current central PACCAR parts operation.

Sources said that while marketing and distribution are being consolidated, there will continue to be separate parts lines available for Peterbilt and Kenworth trucks.

Brent Johnston, currently general manager of the PACCAR parts operation, will head the new organizational structure. Neither Johnston or PACCAR's spokesman were available for comment at press-time.

Sources said a new organizational chart has been drawn up, but not yet distributed.

PACCAR's parts marketing consolidation, coupled with two permanent plant shutdowns and the recent defection of Kenworth's general manager to Navistar, fueled speculation that the entire operations of Kenworth and Peterbilt would be merged.

Dealers seem to regard that as totally unrealistic, pointing to strategies, styling and engineering differences between the divisions' products.

A more compelling argument against the move, however, is that it would end up eliminating half of PACCAR's dealer network.

In the first five months of this year, heavy-truck sales for the industry were down 20 percent from last year. Furthermore, PACCAR's special niche in the owner-operator segment is being eroded by a market shift to more fleet purchases.

Some truck companies have been phasing out use of owner-operators and going back to company-employed drivers as the best way to control their costs.

That is forcing PACCAR to shift strategies and pursue small and medium fleets more aggressively. Those customers are being courted aggressively by competitors.

The shutdown of Peterbilt's Newark, Calif., plant by Dec. 31 coupled with an earlier shutdown

see TRUCKS, page 58

Seminar points to growing interest

How hot is South Korea among U.S. businessmen?

Ask Dr. Jack G. Lewis, associate director of international programs at the University of Southern California's graduate school of business.

Lewis administers a series of Pacific Rim management programs on doing business with China, Taiwan, Korea and Japan for USC's International Business Education and Research Program.

"Last year, we had only five enrollments on Korea and had to cancel the program," he said, adding that in contrast, both China and Japan drew 13 attendees each.

"This year, we had 17 from upper middle management attending the Korea seminar." Only China outdrew Korea with 20, while 14 attended the program for Japan and 13 for Taiwan.

"We saw a very big shift in one year from Japan to Korea," he said. "People have become sated with Japan — they either have given up on Japan or feel they can deal with Japan."

Lewis said he felt "a real strong shift of dynamism toward Korea" in the seminar, even away from the People's Republic of China.

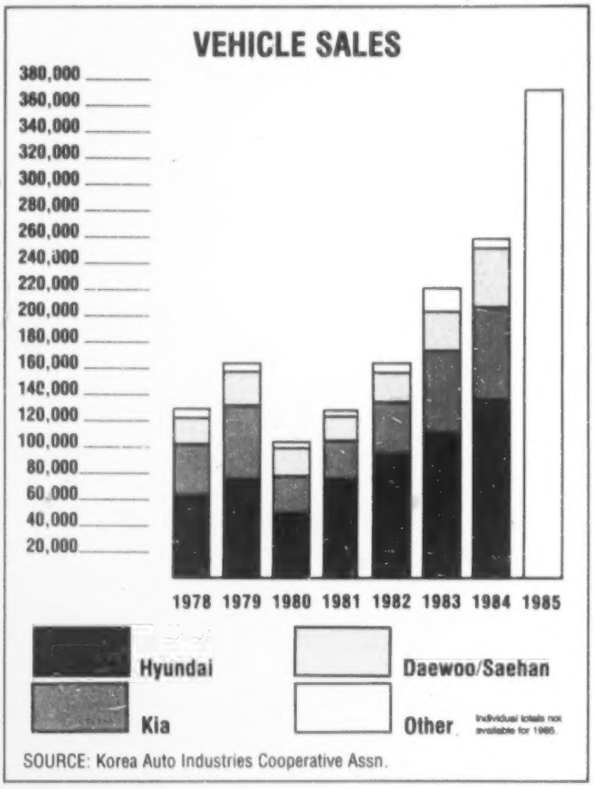
"In the PRC seminar, it was a little bit jaded," he said. "People are concerned with the risks of doing business in the PRC. There is a foreign exchange problem and people are worried about getting their earnings out of the country."

However, on the Korean front, Lewis said he senses a higher level of activity than with the other three countries. "You get a sense that much more is happening in terms of building organizational linkages between the United States and Korea than with Taiwan," he said.

The annual three-day seminars are divided into segments dealing with the overall business; trade and cultural conditions; micro- and macro-economic organization of business; and the practices involved in marketing, negotiating, purchasing and establishing operations in those countries.

According to Lewis, about a third of the attendees at the seminar on Korea were from the automotive industry, including some Hyundai Motor America executives and representatives from tire and other automotive supplier companies. Lewis expects the seminar to become more popular as U.S. businesses become more familiar with such Korean brand names such as Lucky-Goldstar and Samsung.

— Matt DeLorenzo



CHARLOTTE J. WINTER

KOREA

FROM PAGE 1

According to one analyst, "comparing Korea with Japan on equal footing is like mistaking a pygmy for a giant."

Although small in comparison with Japan, the Korean auto industry is viewed by the government as vital to attaining an annual GNP growth target of 7 to 9 percent. As a result, the government has taken an active role in fostering conditions that have permitted the rapid expansion of the nation's automotive manufacturing base.

There are currently six producers of vehicles: Hyundai, Daewoo, Kia, Asia, Dong-A and Keo-Hwa.

Until recently, only Hyundai and Daewoo have produced cars. Kia is just re-entering the car market; it has built vans and light-duty and medium-duty trucks. Asia builds heavy-duty trucks and buses, while Dong-A manufactures only buses and Keo-Hwa builds Jeep-type vehicles. Asia is affiliated with Kia, and Dong-A recently took over Keo-Hwa.

The three majors, Hyundai, Daewoo and Kia, represent virtually all of Korea's production. All three have ties with either Japanese or American companies. Hyundai is 15 percent owned by Mitsubishi; Daewoo is tied up with General Motors; and Kia has a relationship with Ford and Mazda.

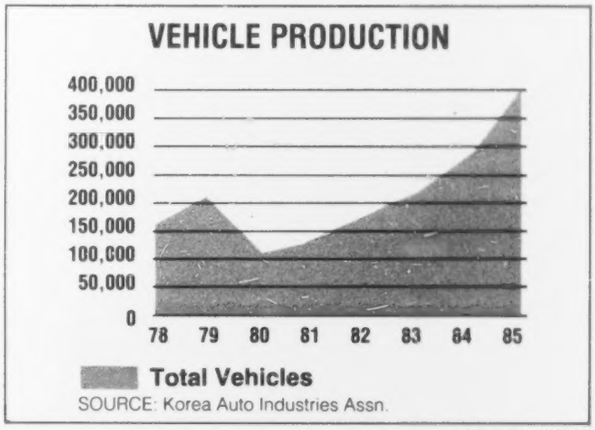
GM's joint venture dates back to 1972, when it signed an agreement with Shinjin, which was renamed Saehan Motors in 1976. Three years ago, that company became what is now known as Daewoo.

The Korean auto industry's roots go back to the mid-1950s following the Korean War, when companies repaired and built vehicles for military use as well as rebuilding military Jeeps for civilian use. The first cars were partially knocked-down Toyota Corona kits assembled by Shinjin Motor Co.

Kia began building three-wheeled trucks in 1962 and added four-wheeled models in 1971. Hyundai, now Korea's largest auto maker, was founded in 1967 and assembled Ford Cortinas in 1968, while Asia assembled Fiat kits in 1970.

By 1974, total production was just over 32,000 units, of which 9,200 were cars, 19,000 were trucks and just over 3,900 were buses.

In 1975, the government unveiled a long-range auto industry promotion plan and three new cars were developed that year, the Hyundai Pony, the Kia Brisa and the Daewoo Gemini. While the latter two were essentially badge-engineered versions of cars manufactured elsewhere in the world, the Pony was an original model developed and built by a Korean maker with the aid of Giugaro's Italian design house.



CHARLOTTE J. WINTER

Production grew dramatically and exports began. By 1979, capacity was 231,000 cars and 110,000 trucks and buses, according to Anthony Geber, writing in Korea's Economy, a publication of the Korean Economic Institute. Actual production was 112,000 passenger cars, 70,000 trucks and 12,000 buses.

Geber, a former foreign service officer assigned to Korea, wrote that "the Korean government has come to regard the automotive industry as one of the new generation of leading export industries. It realizes the large part that automotive exports play in such successful industrial economies as West Germany and Japan."

As a result, the government has had a keen interest in the fortunes of the Korean auto industry.

In 1980, the worldwide economic downturn triggered by the 1979 oil crises hit Korea as well and passenger-car production dropped by more than 50 percent with factories running at a third of their capacity.

As a result, the government stepped in and reorganized the auto industry. Passenger-car production was limited to Hyundai and Daewoo, while light trucks were assigned to Kia. Trucks over five tons could be built by Hyundai and Daewoo, while Asia was given trucks in the eight-to-nine-ton range. Keo-Hwa assembled Jeep-type vehicles, while the other five could build buses. Hyundai, Daewoo and Kia could also build special-purpose vehicles.

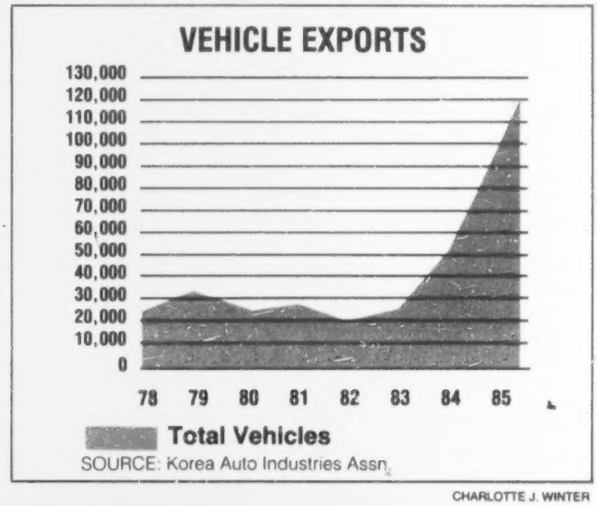
Hyundai, the largest, controlled 54.5 percent of the Korean domestic car-truck market in 1984. It has two basic car lines, the original rear-wheel-drive Pony and the Stellar. Two new models, the front-wheel-drive Excel (which is being exported to the United States) and the new Sonata, are also being sold alongside the older cars in Korea.

Daewoo, which has about 16 percent of the market, builds the Maepsy, which is a minicar, and is finishing work on its version of the Opel Kadett, which in addition to being sold in the home market, will be exported to the United States for sale by Pontiac as the LeMans.

Kia, which had been prohibited from building cars until 1987, will return to the market with a minicar developed jointly with Ford and Mazda. Kia, which has had the light-duty and mid-range truck market to itself, will also face competition in that segment when Hyundai and Daewoo are permitted to re-enter that arena. Kia had about 29 percent of the nation's new-vehicle market in 1985.

Although the internal Korean market will be somewhat freer with more companies allowed to build cars, the government is continuing to limit the involvement of others in auto manufacturing to ensure an orderly market. That strategy is evidenced by the government's refusal to let Samsung, an electronics giant in Korea that has a joint-venture relationship with Chrysler, to enter auto manufacturing.

With the industry reorganized, an economic recovery in North America and the successful launch of Hyundai's Pony in the Canadian market, vehicle production recovered from its 1980 low to nearly 160,000 cars by 1984. Hyundai's launch in the United States and Daewoo's pending export of the LeMans have resulted in a major expansion of capacity.



CHARLOTTE J. WINTER

The Korean government is predicting a 60 percent increase in capacity over 1985 to 600,000 units this year. Next year, capacity will increase by another 60 percent to nearly 1 million units, according to S. Kim Song, commodity manager of GM's Purchasing Activities Staff.

In a presentation to the Sixth United States-Japan Auto Industry Conference at the University of Michigan, Song estimated that Hyundai would have capacity for 450,000 units, Daewoo, 300,000 and Kia, 200,000. Hyundai has since upped its estimate to 600,000 units.

In addition to opening new export markets, Song expects the Korean domestic market to expand greatly. As noted earlier, Korea has relatively low penetration of autos per thousand population.

"There is a large reservoir of pent-up demand in Korea," Song said. Domestic demand might hit 800,000 units per year by the 1990s. The strong domestic demand coupled with tight worldwide trade policies will move the Koreans to foreign assembly in a much shorter time than the Japanese, who sold cars in the United States for more than 10 years before beginning U.S. assembly.

Hyundai, for example, has been selling cars in Canada for only 2½ years and has already begun work on an assembly plant in that country.

According to Geber, "Korean development strategists subscribe to a concept called the 'product life-cycle theory' according to which the comparative advantage of a given product gradually declines in a mature economy and is finally lost to other countries still in an earlier stage of development."

KOREA: A RISING POWER

Exports are vital; protectionism spells trouble

Korea hopes to avoid fire aimed at Japan

By Matt DeLorenzo
LOS ANGELES REPORTER

As South Korea prepares to plunge headlong into auto exports, it is facing waters muddied by strained trade relations worldwide that threaten an outbreak of protectionism. That spells trouble for the "economic miracle."

The dramatic growth in Korea's economy and its newly gained status as an industrialized nation is predicated on exports, and the automobile is a major part of the country's overall strategy.

While the Koreans look to neighboring Japan as a model of success, it is Japan's success in exporting cars and other consumer products that has fanned protectionist fires.

Korea is struggling to join the ranks of developed nations by posting a trade surplus for the first time in its history and is seeking to repay its $46 billion foreign debt. Therefore, it is sensitive to any doors closed in its face, and it is sensitive to any pressure to open its fledgling economy to the rest of the world.

As a result, Koreans are going to great lengths — in their business dealings in the United States and lobbying efforts in Washington — to put as much distance as possible between themselves and the Japanese on trade issues. They hope to head off any protectionist legislation aimed at their rival that might catch Korea in the crossfire.

In putting Korean trade issues into perspective, three things must be considered:

1. The importance of exports to the Korean economy.

2. Factors that give Korean products an advantage in world trade.

3. The effects that internal and external trade policies will have on Korea.

It cannot be denied that exports are critical to the continued growth of the Korean economy. According to S. Kim Song, a commodity manager for General Motors' Purchasing Activities Staff, Korea views export as an engine of growth."

She said that because Korea has lost some of its competitive edge in shoes, steel, shipbuilding, textiles

see TRADE, page 24

KOREANS CATCH ON
After a 1984 introduction, Hyundai soared to the top of Canada's import-sales charts within two years with the Stellar sedan and Pony hatchback, shown here as 1986 models. After just four months in the United States, Korea's Number One carmaker now claims the title for most cars sold by any importer in the first six months of operation. Its U.S. record is based solely on the subcompact Excel.

Domestic sales sharing in boom

By Matt DeLorenzo
LOS ANGELES REPORTER

South Korea's rapid development of its automotive export capacity has overshadowed the progress being made in building a domestic market for cars and trucks, one that has the potential of growing from just 9,000 passenger cars in 1974 to nearly 660,000 in 1990.

R.E. Gene Williams, head of Strategy Support Associates, Garfield Heights, Ohio, estimates that the number of passenger cars in use in the country will reach 2.2 million in 1990.

Williams, who previously worked for TRW, has put together a computer forecasting model that indicates a healthy domestic market for the developing industrialized country.

There were 460,000 passenger cars on Korean roads on Jan. 1, 1985, and that's expected to grow to 738,000 this year on domestic sales of 240,000 units.

According to the Korea Herald, first-quarter sales were 30,467 units, a 23-percent increase over a year earlier. The debut of Daewoo's version of the Opel Kadett and Kia's re-entry into the domestic-car market later this year with the Mazda-designed Festiva minicar are expected to push sales even higher.

The newspaper attributed the increase to a drop in oil prices, which had resulted in an average saving of 15,000 won per month by a person driving 100 kilometers a day and using 10 liters of fuel.

Williams expects sales to jump to 462,000 cars in 1988 and to 658,000 in 1990.

He predicts that Hyundai will continue to dominate the market in 1988, selling 304,000 units; Daewoo will produce 113,000 for domestic use; and Kia, 43,000. He said that Keo-Hwa, a utility-vehicle maker which is expected to join the minicar ranks in Korea, will build 1,800 of those units in 1988.

Breaking it out by model for 1990, Williams said Hyundai will produce 105,000 of its Pony Excel; 109,000 of the Sonata; 5,000 of the L-model, which is expected to be a version of Mitsubishi's large car, the Debonair; and 120,000 yet unnamed minicars for a total of 339,000 units.

Daewoo, which will produce 239,000 cars for the home market, will build 66,000 Royale models, which is a mid-sized car similar to Sonata; 53,000 of the Opel Kadett design; and 120,000 minicars. Kia is expected to produce 78,000 cars — 18,000 subcompacts in the Mazda 323 class and 60,000 Festiva minicars. Keo-Hwa will produce 2,200 minicars in 1990.

The light-truck market will be more stable, according to Williams, although their number on Korean roads will increase from 306,000 in 1986 to 556,000 in 1990. Sales are expected to be about 66,700 this year, moving to 115,000 in 1990.

The dominant company in that segment is Kia, which is expected to sell about 48,000 light trucks and vans in 1986 and 77,000 in 1990.

Hyundai is a distant second, selling 11,000 this year and 24,000 by 1990, Williams said. Daewoo will build 6,000 light trucks in 1986, moving up to 14,000 by 190. He expects Keo-Hwa to reduce production, slipping from 1,700 units this year to about 800 in 1990.

Government-business: Tie differs from Japan

By Matt DeLorenzo
LOS ANGELES REPORTER

The rapid development of South Korea as an industrialized nation owes much to the close relationship between government and business, similar to the Japanese model.

There exists "Korea Inc.," but because of cultural, economic and political factors, there are significant differences between the two nations' approach to the government/business combine.

"Korea's cooperative business-government relationships owe much to both its fear of war with the North, which makes economic growth a matter of survival, and its Confucian tradition," according to John T. Bennett, president of the Korea Economic Institute.

Bennett said that starting with basically an agrarian society that was shattered by the Korean War, the government viewed business as a way "to develop higher wages and to provide its own armaments." A series of five-year plans started by President Park Chung Hee in the early 1960s started the country on its rapid climb.

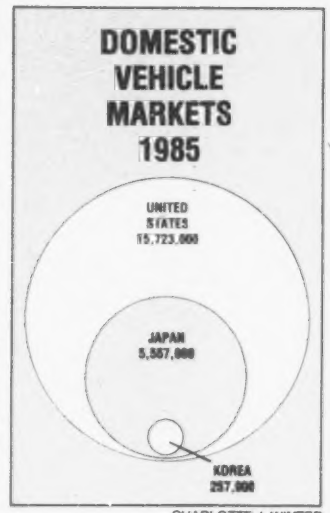
Working through large, family-run conglomerates known as Chaebol — which are similar to the Japanese industrial groups called Zaibatsu — the government "has clearly been the dominant partner, largely immune to any business-generated pressure," according to Glenn Lehmann, a consultant with Korean experience.

Because South Korea is smaller than Japan in both land and population, the number of those large conglomerates is fewer than in Japan and, as a result, their impact on the economy is much greater The sales of the four largest — Hyundai, Daewoo, Lucky-Goldstar and Samsung — account for 45 percent of Korea's gross national product.

Like the Japanese Zaibatsu, Korea's Chaebol are involved in such diverse fields as car and ship building, construction, textiles, electronics and petrochemicals. With such power concentrated in a relatively small number of companies, it would seem that they would have tremendous influence on the government. But, according to Bennett, that is not necessarily the case.

"Government tends to be dominant in the relationship as a spokesman for Korean values," he said, adding that "government is viewed as a failure if the economic miracle doesn't work."

As a result, government still calls the shots, as when the 1980 recession rocked the country's fledgling auto industry and government stepped in and decided which companies were to produce certain vehicles.



CHARLOTTE J. WINTER

Only recently, with a recovered economy and an auto industry ready to plunge into exports on a large scale, has the government reopened the auto industry to a degree.

It is allowing those companies which had been limited to trucks to produce cars and vice versa. However, it is keeping Samsung, which had no auto building experience, out of the assembly business for the time being.

Jack Lewis, a professor at University of Southern California's Graduate School of Business, said the large groups, once they are allowed to compete in a given area, are given a free hand by the government.

"A high level of competition leads to better products," he said, noting that stiff competition among consumer goods "has helped Japan. The South Korean government may help certain industries, but it lets the companies compete. They may have three or four companies in a target area. The competition leads to better products for export."

The large groups, according to Lewis, "are incredibly young. Most were started in the late 1960s. They have benefited from personal contacts in government and have grown quickly."

It is those contacts, as well as Korea's clumsy attempts at influence peddling in Washington in the early 1970s, that raised questions

see BUSINESS, page 28

KOREA: A RISING POWER

TRADE

FROM PAGE 22

and similar products to other developing countries, Korea sees the "automobile as one of the leading strategic export products and the locomotive for the renewed economic expansion for Korea to the year 2000."

A study by the Korea Institute for Economics and Technology put Korea's car exports at $1.8 billion by 1990 and $10 billion by the turn of the century.

Song noted that from 1959 to 1962, the gross national product in Korea grew 3.2 percent annually and the country suffered from severe economic stagnation and high inflation.

Following the takeover by Park Chung Hee's military dictatorship, a series of five-year plans aimed at developing heavy industry with the goal of expanding exports was instituted. From 1963 to 1979, Korea's economy grew at an annual rate of 7.9 percent and real export growth was just over 30 percent a year.

Since 1979, annual GNP growth peaked at 9.3 percent in 1983 and leveled off at 7.5 percent in 1984, according to U.S. Commerce Department figures. In 1985, that figure fell to 4.2 percent, but it is expected to return to the targeted 7 to 9 percent this year, fueled by auto exports.

However, the 1985 figure was an embarrassment to the administration of President Chun Doo Hwan and any slowdown in the "economic miracle" could undermine his regime politically.

As a result, the government has become even more sensitive to trade pressure from the United Sates that would either choke off exports or open the domestic market completely. Either of those occurrences would slow South Korea's economic growth.

In seeking export markets, Korea has been able to get in the door with low-cost products because of wage rates that are a fraction of those in the rest of the industrialized world. According to the Korean Ministry of Finance, the average hourly wage in 1984 for the manufacturing sector was $1.46, a rate that does not include benefits. The automotive sector was slightly higher at $1.64 per hour.

The work week in South Korea averages 50 hours. According to several analysts, benefits add 50 percent to the basic wage rate, which would put the automotive labor cost at about $2.50 per hour.

In Japan, the wage rate in the automotive sector is estimated at $12 to $13 per hour including benefits. That is figured at 238 yen to the dollar. It would be higher if figured at 170 yen to the dollar.

In the United States, the base rate for wutoworkers is $13.75 per hour without benefits and $24 to $25 per hour with benefits.

One analyst estimated the direct labor costs of a Korean small car at $300, compared with $800 for a similar Japanese model and $1,800 for an American model.

David C. Cole, a specialist on the Far East for the Harvard Institute for International Development, feels that the South Koreans will be able to take advantage of those low labor costs "to take over a significant share of the lower (automobile) market area. This is more of a threat to the Japanese manufacturers and less of a threat to the U.S. makers."

Cole added that since the Korean economy is so small in comparison to the Japanese economy, "What is a high rate of growth for them in automotive exports won't make a big dent in the U.S. market, especially for U.S. makers who have given up the low end of the market."

Cole added that while Korea's share of the U.S. market will be small, the Japanese and American companies are aware of the threat.

Korea's advantage goes far beyond just the basic labor rate, according to Cole.

"They have new equipment, new factories," he said. "They have good workers and they work very hard. Their tremendous advantage stems from their substantial cost advantage over the Japanese, and that is because the won (Korea's currency) has remained the same against the dollar while the yen has gone up."

Using the cost advantage to expand trade, Korean products have found quick success. An example is the Hyundai Pony, which in two years became the leading imported car in Canada.

'Their tremendous advantage stems from their substantial cost advantage over the Japanese, and that is because the won (Korea's currency) has remained the same against the dollar while the yen has gone up.'
— David C. Cole

Coming out of nowhere to be a force in foreign markets tends to make the Koreans an easy target. Faced with the prospect of rising trade tensions, it is generally felt that South Korea will be more flexible and will move more quickly than Japan in opening its markets and investing overseas.

"They (the Koreans) want to be an absolute success and they are seeking praise for what they've accomplished," said Max Jamiesson, executive vice president of Hyundai Motor America.

"But," he added, "they're running into criticism. They weren't expecting that and they're getting the feeling that they've done something wrong. That is why they've committed to putting up a plant in Canada within 18 months and are buying U.S. components for their cars."

In addition to seeking U.S. investments, Korea has also implemented a program to liberalize its market, including a reduction in tariffs designed to lower the average rate from 22.6 percent in 1983 to 16.9 percent by 1988.

The program also calls for reducing import licensing restrictions to less than 5 percent of total import categories. A total of 235 products are scheduled to be removed from the import embargo list this year.

However, Robert McElheny, a former assistant secretary for trade development in the U.S. Commerce Department, said there is a limit to how far the Koreans will go in opening their markets. Writing in Business Korea last October, he said, "The Korean government confronts a difficult situation. A slip in its GNP has spurred critics in the country to voice complaints on the government's policy of market liberalization.

"Rising protectionism abroad has made it extremely difficult for the Korean government to garner domestic support for liberal reforms that increase the percentage of foreign products that can be imported without prior official approval, and for reforms that ease restrictions on foreign investment in Korea."

Kum Jin-Ho, Korea's minister of trade and industry, told Business Korea last December that of the 31 items liberalized in January 1984 at the urging of the United States, Japan supplied 44 percent of those items, while the United States supplied only 16 percent. Since then, the appreciation of the yen has given American companies a boost in the Korean market, while at the same time spurring Korean exports to Japan.

'Korea's economic policies and development process have been similar to those of Japan only in that both countries have high population density and are poorly endowed with natural resources. But the magnitude of Korea's economy is only one-fifteenth of Japan's in GNP terms.'
— Park Un-Suh

Despite the distance Korea is trying to put between itself and Japan, the futures of the two countries are closely linked, according to Dr.Jack Lewis, of the Graduate School of Business at the University of Southern California.

"There is a deep relationship between Korea and the Japanese, he said. "Korea is benefiting from the Japanese example. How far they go will depend on two factors. One is the degree to which the Japanese will let Korea transfer technology from them. The second is how well they adopt quality control from Japan. What they're doing is using retired executives from Japan."

Park Un-Suh, director general of trade promotion for Korea's Ministry of Trade and Industry, said in Korean Economic Institute's Korea's Economy that his country, although resembling Japan in terms of development, will never reach the same economic scale that Japan enjoys today.

"Korea is sometimes perceived as a second Japan," he wrote. "This misleading perception is probably due to Korea's rapid economic and trade growth which is, however, only one side of the Korean economic reality.

"In fact, Korea's economic policies and development process have been similar to those of Japan only in that both countries have high population density and are poorly endowed with natural resources. But the magnitude of Korea's economy is only one-fifteenth of Japan's in GNP terms."

Park estimated that the Korean economy is almost 30 years behind Japan's in terms of ecomomic development.

Park said the most telling evidence on this point is that Korea has run chronic trade deficits "while Japan has recorded unbroken trade surpluses since 1964, totaling $34 billion last year alone."

The fact remains that this year, Korea will go into the black on trade while the United States posts a record trade imbalance. Korea's presence in the United States with highly visible products, such as Hyundai and Daewoo automobiles and consumer electronics from Lucky-Goldstar and Samsung, means that it will have to deal with trade issues on a continuing basis.

Hyundai's Jamiesson, however, feels that Japan's experience in the United States has clearly marked the pitfalls and that Korea intends to avoid them.

On trade, Jamiesson believes that the saber-rattling by politicians, business and labor in the United States is "sending a message to Japan. I also think the message will reach Korea, and the United States will get a result quicker from Korea than from Japan."

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KOREA: A RISING POWER

Parts industry grows with eye on world sales

By Matt DeLorenzo
LOS ANGELES REPORTER

Moving beyond the export of built-up vehicles, South Korea's Ministry of Trade and Industry has targeted the automotive parts sector for development as one of the nation's strategic export markets.

Fueled by the expansion of Korea's automakers, the component industry is looking for sales of $1.5 billion this year, an increase of 50 percent over 1985's $1 billion. Exports are expected to reach about $200 million this year.

MTI's strategy in favoring auto parts works on several levels. On one level, it is designed to help the smaller suppliers expand to meet Korea's own original-equipment requirements as well as to allow them to supply foreign manufacturers.

'The economy has gotten larger and too complicated for the government to get as involved as it was before. . . '

— John T. Bennett

It is also designed to protect those smaller companies and make them more competitive as it opens up the sector to the larger manufacturing companies and joint ventures which have previously been kept out by the government.

Of overriding importance, according to one government official, is a move toward "systematization" or cooperative assembler-supplier relationships similar to those found in Japan.

The government feels that tighter bonds between suppliers and manufacturers will result in components of better quality and a more stable business environment in which the smaller firms will thrive by being locked into long-term relationships with a single manufacturer.

It is that interest in the smaller companies which marks a change in the South Korean government's attitude toward business, according to John T. Bennett, president of the Korean Economic Institute.

"The economy has gotten larger and too complicated for the government to get as involved as it was before" with the larger Chaebol groups, he said. "The government is now more deeply involved with the thousand or so smaller companies it has targeted for growth." Auto parts manufacturers are among those companies.

The Chaebol are the large, family-run conglomerates.

Currently, parts manufacturing is spread among more than 800 suppliers in South Korea, most of which are classified as small-to-medium-sized companies by the government.

Anthony Geber, a former state department official assigned to Korea, estimated in a paper for the Korea Economic Institute that 66 percent of those firms employ 100 persons or less and a corresponding number are capitalized at no more than $250,000 each.

The recession of the early 1980s caused a shakeout in that segment and in order to protect the companies that were left, the major conglomerates were restricted from producing many components.

However, the drive to make autos a major export commodity has forced changes in that policy. MTI not only recognizes the need for additional parts capacity to supply OEM demands, but it also recognizes that world-class quality requires the capital and volume that only a large company can provide.

In addition, the government encourages joint ventures and licensing arrangements with foreign firms in order to upgrade the quality and capacity of component manufacturing.

In the May issue of Business Korea, Noh Hee-Mok, an economist with the Korea Institute for Economics and Technology, said that the auto parts industry is expected to grow at an average annual rate of 20 percent during the next decade. Much of that growth will come from joint ventures and from the large companies which have absorbed smaller suppliers.

Among the joint ventures reported in Business Korea are three units set up by General Motors and Daewoo.

They are: DHMS Industries, which provides steering gears, axles, brakes, radiators and air-conditioner parts; Koram Plastics, a venture between Daewoo's Korea Steel Chemical and GM's Fisher Guide, which will produce polyurethane bumpers; and one between GM's Delco Remy and Daewoo Automotive Components, which makes starters, alternators, distributors and coils.

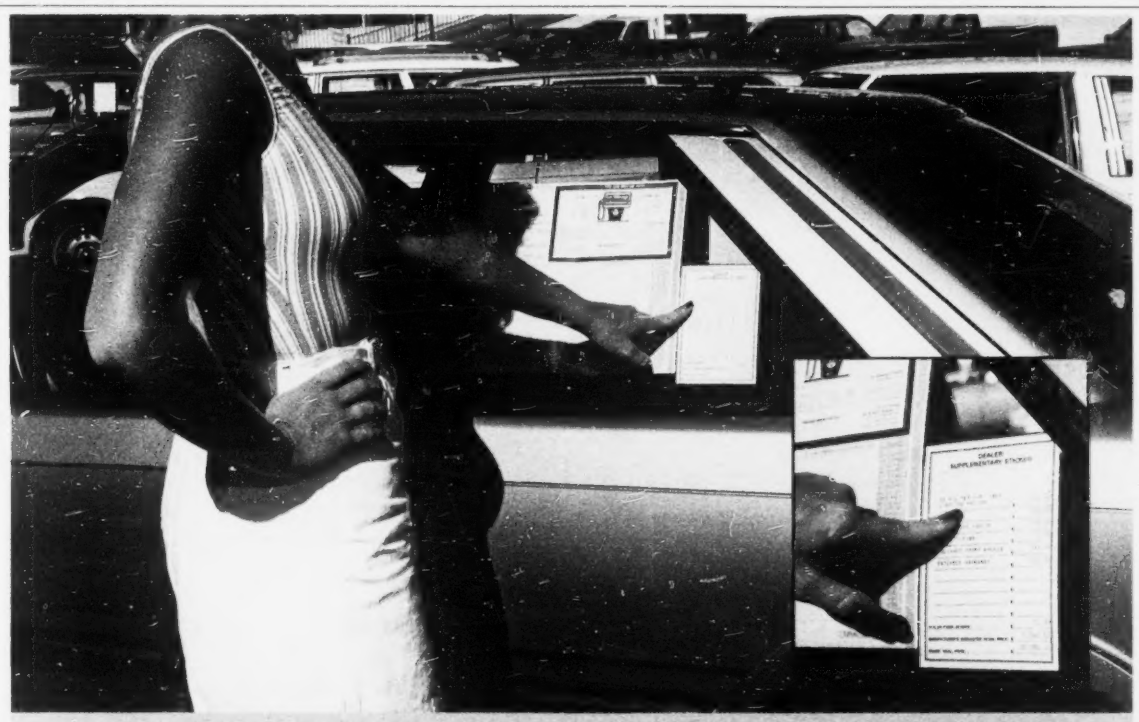
Those three represent an investment of just over $180 million. Ford Motor Co. is tied with Mando Machinery, which is affiliated with Hyundai, to produce radiators. Kia has an agreement to produce steering gears with TRW.

Beyond supplying the Korean OEMs, those joint ventures provide the stepping-stone for Korea to begin supplying parts to manufacturers throughout the world.

A key example of that scenario is the relationship between Chrysler and Samsung. Samsung, which has made its name in electronics, has so far been denied permission to get into auto manufacturing. However, with the easing of restrictions on parts manufacturing, Samsung will be able to produce components for vehicles assembled by Chrysler Corp.

American firms aren't the only ones seeking to exploit the low-cost advantages of a South Korean joint venture. According to Geber, at the end of 1983, there were 14 joint ventures with foreign companies and 50 technical-assistance

see PARTS, page 28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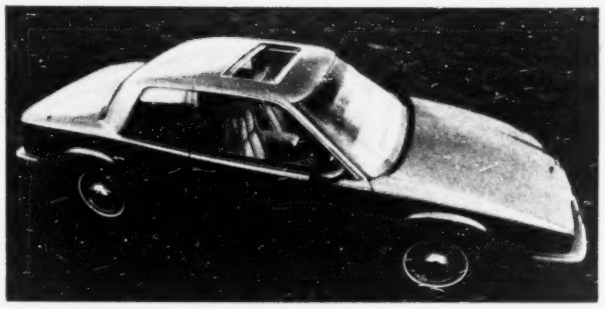

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KOREA: A RISING POWER

PARTS

FROM PAGE 26

agreements. Most of those were with Japanese firms.

Given the strength of the yen, the Japanese are likely to count more heavily on those relationships for low-cost components to offset higher vehicle prices resulting from unfavorable exchange rates.

The emergence of South Korea as a major player in outsourcing gives pause to labor leaders and suppliers in the United States, especially in view of the fact that Korea's auto parts exports are expected to reach $200 million this year and $500 million billion by 1988.

However, Max Jamiesson, executive vice president and chief operating officer of Hyundai Motor America, sees it differently. He feels that while the Koreans are eyeing the U.S. OEM market, U.S. suppliers should also be looking at Korean OEMs as potential customers, not only for components, but also for the machinery to build cars.

According to Jamiesson, trade has emerged as such a sensitive issue with the Koreans that opportunities exist for U.S. suppliers, despite the fact that those components may cost more than Korean-produced items. However, he stresses that the "window of opportunity" may not stay open forever.

Jamiesson noted that Korea has relied on Japanese-manufactured components in the past, but the steep appreciation in the value of the yen is giving U.S. suppliers a chance to become competitive. He feels that American companies have yet to take advantage of that opportunity.

"All we do is sit around and moan that we can't export our product, and I don't know if we've even tried," Jamiesson said of the U.S. suppliers.

Pointing to the Hyundai Excel, he said that the tires, cloth for the interior, spark plugs and glass are sourced in the United States.

"We're not doing that we because we couldn't locate suppliers in Korea," he said.

Jamiesson admitted that trade pressures may be contributing to the window of opportunity. But, he declared, "If you're a good vendor, who says you can't have a lasting relationship with our company? If you're competitive, and I mean competitive in quality and not necessarily price, they'll use you."

BUSINESS

FROM PAGE 22

of corruption in Park's administration as he pushed Korea forward.

A 1980 study by the Korean Development Institute and the Harvard Business School said corruption was minimal, but Bennett said those knowledgeable about Korea's history may think differently.

"That it existed, no one can deny," Bennett wrote in 1983 on Korea's business government relations. "Accepting the fact of past corruption raises another question: the degree to which government played an aggressive role. If government decisions could be bought, then the businessman might be in control.

"The answer seems to be that business could buy small favors (e.g., by which an otherwise qualified firm was permitted to make diesel engines), but not the important ones, at least after Syngman Rhee was replaced. The difficult decisions on exchange rates, duties and interest rates were made in the national interest. The objectives of growth and equitable income distribution have remained constant."

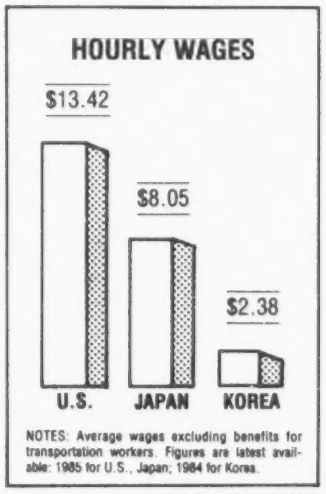
In contrast to Park's policies, which focused primarily on the larger companies involved in heavy industries like steel and shipbuilding, the government under President Chun Doo Hwan has recognized that the Chaebol have matured rapidly. Consequently, it is giving more autonomy to the large groups and is concentrating on smaller businesses.

"Beyond the large Chaebol, the economy is really more fragmented," USC's Lewis said.

According to Lehmann, Korea's fifth five-year plan, which ends at the end of 1986, "acknowledged that the increased complexity of the economy and the distortions produced by the policies of the 1970s called for a change. The government will now intervene less and rely more on market forces and non-discretionary general incentives."

Another important change — and an important difference between Japan and Korea — is that the Korean government is selling its dominant position in the five commercial banks in the country. However, unlike Japan, where large conglomerates control their own banks, no one, including the Chaebol, will be allowed to own a majority or controlling interest in those financial institutions.

Beyond the similarities between the closeness of government and business in Korea and Japan, the manner in which business is conducted differs greatly between the two countries. In fact, American businessmen may feel more at home in Seoul than in Tokyo.



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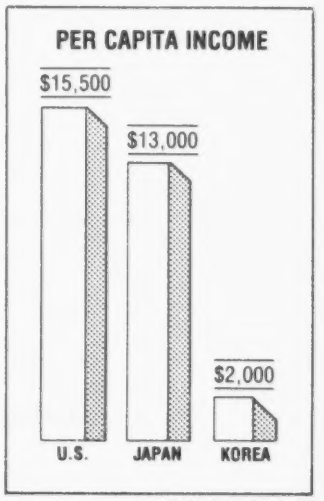

CHARLOTTE J. WINTER

"Business in Korea at the macroeconomic level is organized in a way that is more familiar to Americans," Lewis said.

Max Jamiesson, executive vice president of Hyundai Motor America, agrees.

"Management is set up more like a pyramid," he said, noting that all the Chaebol have strong leaders willing to make decisions and take risks. Unlike the Japanese, who rely on a broad consensus where management decisions rise from the lower levels, Jamiesson said, "it doesn't take a lot of people to make a decision" in South Korea.

While the more traditional top-down style is similar to U.S. companies, Jamiesson adds, "they've infused some of the consensus style with that."

Another cultural trait that differentiates the Korean style of business from the Japanese style is that "Koreans are very confrontational," according to Bennett. He added that while the Japanese may acknowledge your position by saying yes when they actually disagree with you, the Koreans are more direct.

Jamiesson said that to an outsider, some meetings may seem like a fight — that each position is spelled out in no uncertain terms.

"But it is a means of communication on an issue, a means of building a strategy or a policy," he said. He added that while the discussions may be loud, the participants "will walk out of the room friends, and everyone will be committed to the idea."

A leading factor in this similar organization of business is education. "There is a high percentage of U.S. education among the troops; that is why their management style is closer to the U.S. pyramid," Jamiesson said.

"Koreans are terribly literate," Lewis said, noting that their literacy rate is above 95 percent. "There is a tremendous amount of information, and many are U.S.-educated."

Korea's educated and skilled workforce has resulted in a rapid transition to industrialized status. In 1963, 63 percent of the workforce was employed in agriculture, forestry and fishing, while manufacturing accounted for 8 percent.

By 1982, the non-industrial segment was only half as large at 32 percent, while manufacturing jobs nearly tripled to 21 percent, according to Korea Economic Institute figures. The service sector also has increased greatly, rising to 47 percent from 29 percent.

Compared to other industrialized nations, South Koreans work much longer for much less. The average work week is 50 hours, and in manufacturing the average pay is just over $2 per hour.

While few Koreans are involved in labor unions and businesses are organized into trade associations that set wages, it's expected that pay will increase as the economy expands to meet export requirements. With unemployment at 4.4 percent, which is viewed as virtually full employment, the demand for skilled workers will push up their compensation levels.

According to Bennett, "Because of competition for skilled workers, however, job changing has proved to be frequent compared to both Japan and the United States."

Bennett expects unions or trade associations representing workers to become a greater factor in the future.

KOREA: A RISING POWER

The threat from the North is part of daily life

By Matt DeLorenzo
LOS ANGELES REPORTER

Workers on auto assembly lines in South Korea wear reversible blue jackets that have a camouflage pattern on one side.

Neither a hunting jacket nor a fashion statement, it reflects the state of military preparedness in the country as it moves forward in its quest to become a leading industrial nation.

Ever mindful of North Korea, the South views its security as a top priority even as it grapples with internal politics as part of the transition from an authoritarian regime to a democracy.

"They take the threat (from the North) very seriously," said Daniel Murphy, a retired admiral in the U.S. Navy and former deputy director of the Central Intelligence Agency. "People don't have to be reminded that they were at war with those guys. When you visit Korea, you know you're in a country that is on wartime footing."

That threat contributes to South Korea's almost single-minded devotion to its "economic miracle."

"I believe that a major factor is that South Korea had enjoyed a remarkable consensus ever since the North Korean invasion of 1950 — a fundamental consensus often obscured by soaring political rhetoric," Gaston Sigur Jr., the State Department's assistant secretary for East Asian and Pacific, told Congress in testimony last April.

"From the experience of the Korean War, the people of South Korea became — and remain — virtually unanimous in their concern over the threat posed by the North."

The unifying influence of that threat hasn't stopped South Koreans from engaging in political jockeying between the ruling party and the opposition parties for position when President Chun Doo Hwan steps down in 1988 following the Olympics.

That jockeying has given way to large-scale demonstrations and violent clashes between left-wing student elements and the police.

But are those clashes a threat to the stability of Korea? Many analysts think not and argue that it is a mistake to compare the situation in Korea today to that in the Philippines.

First of all, according to Murphy, "The military is very loyal, professionally trained and highly respected. The economy is booming, although not as much as the government would like. The threat South Korea faces is more of an external threat rather than an insurgency as in Philippines."

He added, "Chun has agreed to step down, and it appears that he is going to give ground on the most important point of open rule rather than using the electoral college in the next election."

Much of the opposition's protest has been centered around the use of a 5,000-member electoral college rather than a direct election after Chun steps down. The opposition feels that the party in power stands a better chance of controlling the college and, as a result, the election overall.

Aside from that point, those on the extreme left are calling for Chun to step down earlier. However, in view of the government's commitment to making sure the 1988 Olympics go off without a hitch, it's not likely that will happen. The Olympics are viewed as a rite of passage into the industrialized world, much as the 1964 Olympics were for Japan.

While the spotlight may be on the Korean political scene — primarily as a result of the attention focused on the Philippines — politics in Korea have never been easy. "Korean politics have always been confrontational," said John T. Bennett, president of the Korean Economic Institute.

"There is more fragmentation in Korean politics than in Japan," said Dr. Jack Lewis, associate director of international programs at the University of Southern California's Graduate School of Business.

However, that fragmentation is also tempered with concern about the North. "In serious conversations, they always raise the threat from the North," Lewis said.

Murphy said history has a lot to do with Korea's political climate and why it seems so disorderly when compared to the Japanese.

"The Japanese never have had to live under the heel of a conqueror like Korea did," he said. "That had a big impact on people. They're more willing to accept a more authoritarian rule." However, finding their way into a democracy for the first time will be a turbulent process.

Korea's peninsula location between China and Japan has contributed to a history of occupation by both countries, yet, according to the State Department's Sigur, the country was able to survive as a "strong and culturally unique nation." The country was a monarchy until the 20th Century when Japan invaded and occupied the country from 1910 to 1945. That period was followed by the devastation of the Korean War.

Following the war, the country was led by President Syngman Rhee, whose policies, according to the Korean Economic Institute, were unsuccessful in promoting economic growth and whose corruption eventually led to his being forced from office in 1960.

He was followed by Park Chung Hee, whose export-based policies began to push the country forward. Violence ended Park's presidency; he was killed by his intelligence chief in 1979.

Chun rose to power and in 1981 announced that he would step down after serving a seven-year term as president.

While internal politics are being played out on the nightly news and may give South Korea an unstable appearance, some of those who have been there view the disturbances in the same light as the protests in the United States during the late 1960s.

"We've had our protests here," said Max Jamiesson, executive vice president of Hyundai Motor America, adding that broadcasts of violent demonstrations in the United States did not mean our government was about to collapse.

Murphy agreed, adding that the left in Korea is moving even farther out of the mainstream in its criticism of opposition leader Kim Young Sam. Murphy, who feels that some of those protests may be instigated by Communist elements, said "maybe they don't want anything," and added that the shift away from recognized opposition leaders may eventually discredit the movement.

Any discussion of the internal stability of South Korea returns to the question of North Korea. North Korea is perceived as such a threat that any political differences are secondary. While North Korea would like to share in some of the Olympic activities, the South remains wary of any dealings with the North.

As recently as 1983, four members of the South Korean cabinet and 13 other government officials were killed in a bomb blast in Rangoon, Burma, that was linked to North Korea. In 1984, four North Koreans were killed in a border clash when a defector ran across the demilitarized zone. So the threat remains very real.

But South Koreans also take comfort in the fact that there are 43,000 U.S. troops stationed in their country. When President Carter suggested in the late 1970s that the United States reduce its presence in the country, it touched off an outcry from South Korea and the plan was quietly dropped.

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AT YOUR SERVICE

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Automotive News
Service Profits EXTRA
July 21, 1986

Korean chassis for American Roads
Asia Motors Co. will manufacture trucks in Korea using U.S. components. The chassis models will be sold by The Smith Cos., Plaistow, N.H., beginning this year.

AUTOMOTIVE WORLD NEWS

Japanese makers gain market share in Europe

By Richard Feast

The accompanying table indicates why the export-restraint alarm is ringing at Japan's Ministry of International Trade and Industry: Japan improved its new-car market penetration in all 16 countries of Western Europe in the first five months of 1986.

Total car sales in Western Europe this January-May were up 7.5 percent over a year ago. Sales of Japanese makes rose more than 20 percent. Sales of Europe's domestic makes increased less than 6 percent.

The five-month Japanese share was 11.8 percent, a 1.4 percentage point gain over last year. As a group the Japanese are outselling all but the Volkswagen and Fiat groups in Europe. Toyota and Nissan each have 2.9 percent of the market; that's more than such local nameplates as BMW (2.6 percent), Audi (2.5), Volvo (2.4), Alfa Romeo (1.6) and Seat (1.4).

A combination of events has led to Japan's strong showing, including an increase of the yen against the dollar, and U.S. export restraints which led the Japanese to focus more attention on Europe. Also, Japanese domestic demand for cars is flat, while Europe is enjoying a comparative boom.

Another factor is Japanese products themselves. A few years ago Japan was producing mini American-type cars that by their nature were not targeted at European consumers. Today's Japanese cars are as technically advanced as Europe's and are styled more for European — and changed American — tastes.

These events have allowed Japan to make market gains on a total European front. Though some European manufacturers are protected in their domestic markets — Fiat in Italy; Renault and Peugeot in France; Austin Rover, Ford and General Motors in the U.K. — they are still losing out in non-producing nations.

Japan gained 7.9 percentage points in Greece (now 32.6 percent) and 5.3 points in Denmark (35.1 percent). In Ireland's newly liberalized market, Japan added 8.4 points this year to reach a five-month share of 40.9 percent.

In sheer numbers, however, nothing compares with the structural change taking place in West Germany, Western Europe's biggest national market. New-car registrations climbed there almost 30 percent, or 40,700 units above the same period last year. At 14.4 percent, the Japanese share of the West German market is approaching Adam Opel's and has long passed such domestic makers as Ford, Daimler-Benz and BMW.

What worries West German manufacturers is that there seems to be no end in sight. Consumers are turning to Japanese cars, and the country has no trade restrictions on volume.

The Japanese are taking an average market share of more than 18 percent in Western European countries that do not have some form of sales restriction. (Those that do are Italy, France, Spain, the U.K. and Portugal.)

The Japanese have made even greater inroads in the medium-van market. In the first quarter of 1986 they accounted for about one of every four vehicles sold. Their presence will grow in the next few years, thanks to a step-up in selling built-up imported vehicles.

Nissan is developing an important van-production center at its majority-owned Motor Iberica in Spain.

At the same time, companies as diverse as Daimler-Benz and GM's Bedford Commercial Vehicle Division are strengthening their manufacturing links with Japanese companies — Daimler with Mitsubishi in Spain, and Bedford with Isuzu and Suzuki in the U.K. Also, Ford has started selling Mazda-made vans in certain European markets.

Of the nearly 161,000 medium vans sold in Europe in the first three months of 1986, 24.8 percent were Japanese, 15 percent were Volkswagens and 10.5 percent were Fords. Other market shares: Peugeot, 9.5 percent; Fiat, 9.2 percent; Renault, 8.6 percent; Mercedes-Benz, 8.1 percent. ■

Where Japan is Advancing

Western European new-car sales: January-May 1986

Country	Total sales	Japan share	Japan change	Market change
Austria	112,900	28.6	+ 7.5	+ 0.4
Belgium/Lux	205,100	19.8	+12.5	+ 6.7
Denmark	85,800	35.1	+44.3	+22.4
Finland	68,800	42.1	+17.0	+ 7.6
France	787,900	3.4	+18.8	+ 4.5
Greece	23,800	32.6	+ 0.7	−23.7
Ireland	29,500	40.9	+13.0	−10.2
Italy	864,400	0.2	+90.0	+ 4.4
Netherlands	292,400	22.8	+21.8	+11.4
Norway	82,800	37.5	+51.0	+35.3
Portugal	40,200	9.8	+21.5	+ 8.3
Spain	236,700	1.0	+50.0	+ 1.2
Sweden	109,300	19.3	+19.2	− 5.2
Switzerland	139,700	26.8	+21.0	+13.4
United Kingdom	822,000	10.3	+ 7.1	+ 1.7
West Germany	1,236,800	14.4	+29.6	+17.1
Total	5,138,100	11.8	+21.5	+ 7.3

So that's *why* Japanese cars are so popular

By Richard Feast

Highway breakdown statistics compiled by the ADAC motoring organization in West Germany provide additional reasons for the growing popularity of Japanese cars there.

Japanese-built models, now accounting for an unprecedented 14.4 percent of Europe's largest national market, proved to be the most reliable cars on the road.

The domestic Mercedes-Benz did well in larger-car categories. But for a country that prides itself on the quality and reliability of its products, the ADAC findings are a heavy blow to West German self-esteem. Such statistics, together with road-test reports published in newspapers and magazines, have a strong influence on West German consumers.

When he was chairman of Ford of Europe, Robert A. Lutz, an automotive executive with a wealth of knowledge about Europe, estimated that the West German customer is the most demanding in Europe, and that its automotive press is the most influential. (Lutz recently joined Chrysler Motors as executive vice president.)

ADAC's ratings are based on cars that break down on highways and are attended to by the organization's patrol vehicles. The number of cars totaled 95,000 last year. A car make's reliability ranking is based on the number of breakdowns per 1,000 of those models on the road.

The most reliable model was the Mercedes-Benz 190D (diesel) at 17.6 breakdowns per 1,000. Least reliable was Fiat Panda at 72.7. Those statistics indicate that every 14th Panda buyer in West Germany is destined to be stranded on the highway, while only one in 57 M-B 190D owners is likely to suffer that fate.

The most frequent breakdowns, reports ADAC, concerned electrical systems and electrical equipment. Engine troubles were the third most common cause.

Results are divided into car categories. In the small-car class, Toyota Starlet (18.7) was best, followed by Honda Civic (20.7). Worst in the class were Panda and Citroen 2CV (70.7).

In the medium-car class, Toyota Corolla (18.3) and Mazda 323 (21.0) were best. Worst were Ford Orion (49.9) and Volkswagen Scirocco (55.9).

Among larger cars, Mazda's 626 (above) was rated second only to the Mercedes-Benz 190D in reliability.

Among larger cars, the Mercedes 190D was followed by Mazda 626 (24.8). At the bottom were Ford Sierra diesel (41.5) and Sierra gasoline (55.1).

In ADAC's very-large-car segment, the Mercedes-Benz 200-300 series was first with its diesel (21.3) and second with its gasoline engine (35.2). Mercedes-Benz S-class (57.2) and Opel Rekord (62.4) were worst.

In another consumer survey, the U.K.'s Consumer Association compiled a list of safe cars. It reports a number of Volvo and Mercedes-Benz models as safest, and the three-wheeler Reliant Rianto as least safe.

"In the absence of any official action," the organization reports, "Consumers' Association has carried out its own safety assessments and come up with some important advice for safety-conscious drivers. These are believed to be the first-ever safety ratings available to European consumers to enable them to compare potential safety designs of recent cars."

Each car in the test fleet was examined for 45 potential safety hazards. Inevitably, heavier (and more expensive) cars had better ratings; so CA divided them by category.

In the simplified results, the only models to gain six points were the Volvo 360 GLE, Mercedes-Benz 190E, Volvo 240 wagon and Volvo 740 GLE. Five points were given to Talbot Solara, BMW 323i and Renault 25 GTX.

Relatively high points (four) went to two cheaper models, the Lada Riva and Toyota Starlet. ■

OVERSEAS PRODUCTION

JAPAN

Cars

	4 mos., 1986	4 mos., 1985
Daihatsu	56,807	56,580
Fuji	102,421	78,788
Honda	352,682	312,897
Isuzu	72,342	57,906
Mazda	268,585	267,781
Mitsubishi	201,124	173,411
Nissan	596,937	629,734
Suzuki	90,661	68,062
Toyota	888,830	852,369
Total	2,630,389	2,497,528

Vans, trucks, buses

Daihatsu	143,915	143,772
Fuji	111,763	103,140
Hino	21,554	19,019
Honda	74,919	57,033
Isuzu	117,985	114,712
Mazda	142,718	123,257
Mitsubishi	196,689	187,280
Nissan	181,209	233,797
Nissan Diesel	11,811	12,042
Suzuki	192,828	165,149
Toyota	345,159	385,747
Others	264	139
Total	1,540,814	1,546,046
Total vehicles	4,171,203	4,043,574

UNITED KINGDOM

Cars

	3 mos., 1986	3 mos., 1985
BL	114,363	139,086
Austin Rover	110,595	135,372
Range Rover	3,768	3,714
Carbodies	575	536
Ford	66,309	82,790
Jaguar	11,652	10,573
Lotus	169	239
Panther	66	28
Peugeot	17,467	15,071
Reliant	52	149
Rolls-Royce	610	552
TVR	129	105
Vauxhall	42,210	41,989
Others	156	165
Total	253,757	291,283

Vans, trucks, buses

Bedford	11,877	14,922
BL	20,953	24,034
Austin Rover	5,813	7,139
Freight Rover	4,764	5,331
Land Rover	6,742	7,568
Leyland	3,634	3,996
ERF	556	597
Foden	161	158
Ford	17,481	27,831
Hestair Dennis	137	212
MCW	48	128
Reliant	13	27
Renault	1,014	1,347
Seddon Atkinson	371	422
Others	60	62
Total	52,671	69,740
Total vehicles	306,428	361,023

FRANCE

Cars

	4 mos., 1986	4 mos., 1985
Peugeot SA	526,141	439,303
Citroen	193,462	162,574
Peugeot	332,679	276,729
Renault	424,447	476,161
Total	950,588	915,464

Vans, trucks, buses

CBM	19	20
Heuliez	26	N.A.
Iveco-Unic	36	39
Peugeot SA	58,965	55,666
Citroen	28,087	23,946
Peugeot	30,878	31,720
Renault	98,928	85,520
Sovam	25	30
Total	157,999	141,275
Total vehicles	1,108,587	1,056,739

Decal business is no sticky wicket for Stylistick

A company started less than 10 years ago in a garage in England has come a long way.

Stylistick Auto Ltd. produces adhesive striping for cars. First the company borrowed that idea from the U.S. Now it plans to sell its products here. They currently are exported to more than 60 countries.

Stylistick chairman Michael Person believes his stars and stripes for cars will be marketed in the U.S. within two years, at latest.

The company, with annual sales now topping $3 million, has 50 employees and a modern factory in Great Haseley, not far from the university town of Oxford.

Pearson, 39, learned the art of car customizing in Chicago and on the West Coast, then set up a business in England in 1977.

He recalls, "It was a low-key, low-budget start, but perfectly timed. Within a year we'd done well enough to move to bigger premises. With new ideas and aggressive selling, we soon grabbed the majority share of the market from our competitors. As our confidence grew, so did our output of ideas."

Soon the company started making kits for specific cars, sharpened its marketing skills and looked for opportunities outside of England.

The latest idea was to sponsor a competition for students in an honors degree course in industrial design transportation at Lanchester Polytechnic in Coventry.

As part of the course, the students came up with 600 graphic ideas, and some of them -- sculptures, stripes, symbols — will decorate cars around the world.

The students' work was shown recently in London, will be displayed at the Birmingham auto show this fall, and will be incorporated into Stylistick's product line.

Says Pearson: "Our strength is new designs. We'll pay for the students' ideas; many of them are highly ingenious and commercially viable." ■

— Anne Hope

Among the winners of Stylistick's design competition was this Astra GTE by Mark Goodall.

OVERSEAS REGISTRATIONS

UNITED KINGDOM
Cars

	5 mos. 1986	5 mos. 1985
Alfa Romeo	931	1,371
BL	138,592	148,523
Austin Rover	136,546	147,115
Range Rover	2,046	1,408
BMW	16,4[illegible]	15,612
Daihatsu	2,326	1,933
Fiat Auto	27,859	24,950
Ford	215,922	207,965
FSO	2,123	2,563
GM-Vauxhall	131,963	140,678
Honda	8,422	7,163
Hyundai	2,696	2,076
Jaguar	3,420	3,624
Lada	7,670	5,737
Lotus	201	265
Mazda	8,164	6,524
Mercedes-Benz	8,745	8,442
Mitsubishi	5,187	5,577
Nissan	41,900	40,323
Panther	15	33
Peugeot SA	50,349	45,271
Citroen	14,262	11,133
Peugeot/Talbot	36,087	34,138
Reliant	144	225
Renault	29,157	32,734
Saab	4,351	3,670
Seat	2,412	0
Skoda	5,080	3,760
Subaru	1,299	1,234
Suzuki	1,913	1,787
Toyota	15,355	14,569
VW-Audi Group	50,957	49,433
Volvo	32,218	26,295
Zastava	3,491	3,207
Others	2,355	2,165
Total	822,010	807,928

SWEDEN
Cars

	5 mos. 1986	5 mos. 1985
Alfa Romeo	453	550
BMW	2,066	1,870
Daihatsu	643	535
Fiat Auto	2,775	2,909
Ford	12,204	13,514
GM-Opel	10,263	12,753
Honda	1,859	1,789
Jaguar	15	12
Lada	697	654
Mazda	5,054	4,910
Mercedes-Benz	3,336	3,972
Mitsubishi	904	1,088
Nissan	5,887	3,628
Peugeot SA	2,751	3,360
Citroen	1,164	1,497
Peugeot/Talbot	1,587	1,863
Porsche	246	163
Renault	1,425	797
Saab	11,932	12,712
Skoda	59	169
Subaru	619	694
Suzuki	390	294
Toyota	5,727	4,744
VW-Audi Group	13,728	13,558
Audi	4,862	4,956
Volkswagen	8,866	8,602
Volvo	26,265	30,574
Others	15	16
Total	109,314	115,265

AUSTRIA
Cars

	4 mos. 1986	4 mos. 1985
Alfa Romeo	808	883
Austin Rover	103	91
BMW	2,505	2,805
Daihatsu	410	239
Fiat Auto	5,880	4,952
Ford	8,468	8,212
GM-Opel	11,262	12,598
Honda	1,914	1,581
Lada	487	521
Mazda	7,831	7,902
Mercedes-Benz	3,247	3,234
Mitsubishi	1,891	1,861
Nissan	4,196	4,469
Peugeot SA	5,445	5,792
Citroen	2,186	2,695
Peugeot/Talbot	3,259	3,097
Porsche	181	162
Renault	4,215	4,316
Saab	125	102
Seat	503	304
Skoda	300	374
Subaru	1,395	1,237
Suzuki	560	511
Toyota	5,472	3,812
VW-Audi Group	16,978	17,007
Audi	2,939	3,907
Volkswagen	14,039	13,100
Volvo	1,214	1,237
Others	30	76
Total	85,420	84,278

JAPAN
Cars

	4 mos. 1986	4 mos. 1985
Daihatsu	36,309	39,146
Fuji	26,308	28,048
Honda	101,991	94,057
Isuzu	21,934	12,820
Mazda	69,561	70,242
Mitsubishi	53,514	63,597
Nissan	277,172	291,625
Suzuki	21,926	27,357
Toyota	480,669	478,531
Imports (all)	19,229	15,681
Total	1,108,613	1,121,104

Vans, trucks, buses

Daihatsu	135,647	123,706
Fuji	79,127	79,036
Hino	14,078	14,369
Honda	62,277	46,302
Isuzu	43,563	46,386
Mazda	58,712	56,000
Mitsubishi	124,841	127,538
Nissan	90,483	98,062
Nissan Diesel	7,715	7,188
Suzuki	144,656	138,491
Toyota	126,834	123,882
Imports (all)	59	43
Total	892,992	860,760
Total vehicles	2,001,605	1,981,864

IRELAND
Cars

	4 mos. 1986	4 mos. 1985
Alfa Romeo	28	65
Austin Rover	1,231	1,329
BMW	205	210
Daihatsu	261	82
Fiat Auto	1,600	1,572
Ford	3,288	5,393
GM-Opel	2,636	3,596
Honda	371	172
Mitsubishi	698	230
Nissan	2,887	2,615
Peugeot SA	757	806
Citroen	178	166
Peugeot/Talbot	579	640
Renault	1,270	2,118
Subaru	173	27
Suzuki	376	116
Toyota	4,015	4,699
VW-Audi/Mazda/ Mercedes-Benz	3,598	2,598
Volvo	371	402
Others	495	206
Total	24,260	26,236

FRANCE
Cars

	3 mos. 1986	3 mos. 1985
Alfa Romeo	3,840	4,200
Aro	66	164
Austin Rover	7,456	4,999
BMW	7,515	6,304
Ferrari	54	34
Fiat Auto	28,815	20,824
Ford	28,657	34,478
FSO	235	451
GM-Opel	22,581	21,089
Honda	2,020	1,357
Innocenti	241	274
Jaguar	100	56
Lada	4,463	4,857
Maserati	23	25
Mazda	4,123	3,409
Mercedes-Benz	5,183	4,126
Mitsubishi	1,046	821
Nissan	4,972	3,337
Peugeot SA	146,868	152,591
Citroen	51,615	56,165
Peugeot/Talbot	95,253	96,426
Porsche	405	257
Renault	123,370	136,721
Saab	537	362
Seat	4,831	4,308
Skoda	742	698
Suzuki-Santana	393	4
Toyota	3,478	2,389
VW-Audi Group	26,903	25,956
Audi	5,637	6,466
Volkswagen	21,266	19,490
Volvo	4,234	4,857
Zastava	340	326
Others	9	21
Total	433,210	438,899

WEST GERMANY
Cars

	4 mos. 1986	4 mos. 1985
Alfa Romeo	2,570	3,048
BL	4,073	2,569
Bertone	132	149
BMW	52,367	47,305
Daihatsu	4,142	2,461
Fiat Auto	47,409	37,963
Ford	106,902	80,084
GM-Opel	149,736	132,366
Honda	14,837	11,325
Isuzu	1,924	1,393
Jaguar	655	825
Lada	3,491	2,901
Mazda	28,846	25,269
Mercedes-Benz	106,306	96,711
Mitsubishi	20,568	14,763
Nissan	27,125	20,344
Peugeot SA	46,632	36,195
Citroen	17,089	13,693
Peugeot/Talbot	29,543	22,502
Porsche	4,583	4,441
Renault	34,789	30,774
Saab	1,634	1,054
Seat	1,578	1,259
Skoda	1,087	714
Subaru	5,637	3,679
Suzuki	7,448	6,576
Toyota	31,178	20,434
VW-Audi Group	268,009	238,879
Audi	51,359	49,905
Volkswagen	216,650	188,974
Volvo	5,976	4,701
Others	715	1,091
Total	980,279	829,263

DENMARK
Cars

	4 mos. 1986	4 mos. 1985
Alfa Romeo	221	42
Austin Rover	154	93
BMW	1,407	1,125
Dacia	178	281
Daihatsu	1,578	694
Fiat Auto	3,328	2,861
Ford	8,950	8,630
FSO	514	708
GM-Opel	12,520	9,704
Honda	1,166	589
Lada	1,309	1,442
Mazda	7,004	4,631
Mercedes-Benz	482	364
Mitsubishi	1,667	911
Nissan	3,677	2,391
Peugeot SA	4,792	3,099
Citroen	3,242	2,038
Peugeot/Talbot	1,550	1,061
Porsche	13	0
Renault	420	463
Saab	673	619
Seat	406	5
Skoda	1,249	1,482
Subaru	218	15
Suzuki	125	171
Toyota	8,731	6,600
VW-Audi Group	5,242	3,933
Audi	381	263
Volkswagen	4,861	3,670
Volvo	2,565	2,248
Wartburg	282	486
Zastava	618	594
Others	13	11
Total	69,502	54,271

SWITZERLAND
Cars

	3 mos. 1986	3 mos. 1985
Alfa Romeo	1,450	1,620
AMC	41	38
Austin Rover	563	594
Bertone	43	29
BMW	2,600	2,608
Daihatsu	258	295
Ferrari	27	41
Fiat Auto	6,443	5,164
Ford	5,560	4,723
GM-Opel	9,487	8,776
Honda	1,902	1,879
Isuzu	231	110
Jaguar	110	102
Lada	12	0
Maserati	15	38
Mazda	2,462	1,912
Mercedes-Benz	2,364	1,631
Mitsubishi	2,150	1,914
Nissan	1,922	1,933
Peugeot SA	5,689	5,223
Citroen	2,015	2,003
Peugeot/Talbot	3,674	3,220
Porsche	446	318
Puch	21	33
Renault	4,013	3,994
Rolls-Royce	21	16
Saab	450	256
Seat	711	167
Skoda	43	29
Subaru	3,128	3,093
Suzuki	793	860
Toyota	5,371	3,412
VW-Audi Group	10,607	10,760
Audi	3,276	4,022
Volkswagen	7,331	6,738
Volvo	1,358	1,101
Others	94	78
Total	70,395	62,749

NORWAY
Cars

	3 mos. 1986	3 mos. 1985
Alfa Romeo	59	48
BMW	1,443	861
Daihatsu	538	240
Fiat Auto	1,479	1,311
Ford	6,744	5,345
GM-Opel	5,882	4,670
Honda	1,434	842
Isuzu	23	37
Lada	716	550
Mazda	3,816	3,123
Mercedes-Benz	1,051	521
Mitsubishi	1,687	1,146
Nissan	2,859	1,501
Peugeot SA	2,427	1,899
Citroen	814	620
Peugeot/Talbot	1,613	1,279
Renault	249	107
Saab	923	675
Skoda	65	107
Subaru	874	530
Suzuki	144	61
Toyota	4,887	3,630
VW-Audi Group	4,856	4,305
Audi	1,480	881
Volkswagen	3,376	3,424
Volvo	4,143	2,687
Others	32	25
Total	46,331	34,221

MEXICO
Cars (Sales)

	3 mos. 1986	3 mos. 1985
Chrysler	8,298	9,541
Ford	5,221	9,233
GM	3,618	5,703
Nissan	9,549	13,281
Renault	1,093	5,724
Volkswagen	12,384	21,716
Total	40,163	65,198

Source: Mexican Association of the Auto Industry

Japanese production slips again

TOKYO — Production of Japanese vehicles in May dropped to 999,476 units, down 3.2 percent from a year ago. It was the second consecutive month to show a decline from the previous year.

The Japan Automobile Manufacturers Association's preliminary figures also disclosed that domestic sales climbed 7.3 percent to 417,133, while exports decreased 1.0 percent for the first dip in 15 months.

JAMA said car production in May totaled 646,931, up 1.9 percent, from last year. Truck production was 348,871 units, down 10.0 percent, and bus output was 3,674.

Domestic cars sales totaled 223,098, up 7.1 percent; trucks, 194,448, up 7.7 percent; and buses 1,587, down 2.0 percent.

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IMPORT REGISTRATION SHARES IN U.S.

	APRIL					FOUR MONTHS				
	Regis., March, 1986	Percent Share of Market	Regis., March, 1985	Percent Share of Market	Pct. Pt. Change '86 vs. '85	Regis., 4 mos., 1986	Percent Share of Market	Regis., 4 mos., 1985	Percent Share of Market	Pct. Pt. Change '86 vs. '85
Honda	48,132	18.09	47,114	21.85	−3.76	190,512	18.33	171,601	20.36	−2.03
Nissan	44,062	16.55	37,735	17.50	−0.95	171,065	16.46	152,143	18.05	−1.59
Toyota	36,688	13.78	33,223	15.41	−1.63	165,095	15.88	152,694	18.12	−2.24
VW	18,012	6.77	15,639	7.26	−0.49	80,712	7.76	55,148	6.54	+1.22
Mazda	16,982	6.38	14,440	6.70	−0.32	65,674	6.32	54,532	6.47	−0.15
Subaru	15,674	5.89	11,833	5.49	+0.40	62,926	6.05	46,579	5.53	+0.52
Volvo	9,316	3.50	8,436	3.91	−0.41	34,695	3.34	32,367	3.84	−0.50
Hyundai	8,994	3.38	—	—	—	31,119	2.99	28,610	3.39	−0.40
Spectrum	8,564	3.22	—	—	—	28,122	2.70	26,422	3.14	−0.44
BMW	8,103	3.04	6,287	2.92	−0.26	25,942	2.50	—	—	—
Mercedes	—	—	7,702	3.57	—	—	—	22,658	2.69	—
Audi	—	—	6,287	2.92	—	51,632	19.40	26,071	12.09	+7.31
Others	183,666	17.67	99,985	11.87	+5.80					
TOTAL	266,159		215,602			1,039,528		842,739		
Share of U.S. Total		29.37		23.05	+6.32		29.79		24.61	+5.18

Numbers for Oklahoma from manufacturers' sales records.

April peak for imports

By Jenny L. King
DETROIT REPORTER

Registrations of new imported cars continued at a record pace in April with two relative newcomers joining the top 10 sellers.

Market penetration for the imports was the second highest in history for April.

Figures reported by R.L. Polk & Co. gave imports a 29.37-percent share of the U.S. new-car market in April, based on a record 266,159 registrations. Polk import numbers include Nissan, Honda and Volkswagen passenger cars assembled in this country.

April import registrations were up 23.45 percent from last year's 215,602. Their share of the market was up 6.32 percentage points, to 29.37 percent from 23.05 percent. Record penetration for the month was 30.33 percent in 1981.

Hyundai and Chevrolet Spectrum knocked Mercedes-Benz and Audi out of the Top 10 listing in April. Spectrum replaced Audi in the Top 10 in year-to-date totals.

January-April import registrations totaled 1,039,528, up 23.35 percent from 842,739 in the year-earlier period. Penetration increased sharply, up 5.18 percentage points, to 29.79 percent from 24.61 percent. Hefty sales of imported cars and a stagnant market market for domestics produced the dramatic shift in market share in favor of imports.

Ten makes accounted for 80.60 percent of the import market in April, down from 87.91 percent a year earlier. New imports joining the ranks have raised the import numbers and cut into the penetration power of the older, established Japanese and West German imports.

Japanese-built cars claimed 65.76 percent of the April import total, down from 67.66 percent a year earlier. Cars from West Germany accounted for 13.82 percent, down from 15.12 percent in 1985. U.S.-built imports edged up to 9.73 percent from 9.57 percent. Totals from the nine countries of origin included the following numbers:

	April, 1986	April, 1985
Japan	175,023	145,867
West Germany	36,778	32,597
United States	25,896	20,642
Sweden	13,637	11,946
Korea	8,994	—
Great Britain	2,128	1,778
Yugoslavia	1,645	—
France	1,283	2,055
Italy	775	717
TOTAL	266,159	215,602

Cars from Japan represented 68.94 percent of the four-month market, down from 70.24 percent in 1985. West German products claimed 13.20 percent, the U.S.-sourced models had 9.60 percent, and 4.74 percent were from Sweden. Year-to-date numbers from exporting countries were:

	4 Mos., 1986	4 Mos., 1985
Japan	716,633	591,975
West Germany	137,222	117,720
United States	99,794	71,421
Sweden	49,307	44,657
Korea	13,915	—
Yugoslavia	7,658	—
Great Britain	7,276	6,273
France	5,368	8,471
Italy	2,355	2,222
TOTAL	1,039,528	842,739

Import truck registrations were up 9.27 percent April to April, to 87,763 from 80,315. Numbers for the major truck importers were as follows:

	April, 1986	April, 1985
Toyota	31,332	30,533
Nissan	20,513	22,399
Mazda	12,714	8,078
Isuzu	8,015	6,766
Others	15,189	12,539
TOTAL	87,763	80,315

Import registrations for trucks at the end of the first four months of 1986 totaled 320,318, up 5.07 percent from 304,853 last year.

	4 Mos., 1986	4 Mos., 1985
Toyota	124,047	113,440
Nissan	69,372	89,508
Mazda	42,057	34,089
Isuzu	29,460	—
Dodge Ram 50	—	24,267
Others	55,382	43,549
TOTAL	320,318	304,853

MARKET SHARES

4 MONTHS
1986 VS. 1985

Make	1986 Market Share	1985 Market Share	Pct. Pt. Change '86 vs. '85
Chevrolet	14.56	14.60	−0.04
Ford	12.44	13.52	−1.08
Oldsmobile	9.65	9.76	−0.11
Pontiac	7.73	6.95	+0.78
Buick	6.73	8.10	−1.37
Honda	5.46	5.01	+0.45
Nissan	4.90	4.44	+0.46
Toyota	4.73	4.46	+0.27
Mercury	4.37	5.13	−0.76
Dodge	3.68	4.57	−0.89
Chrysler	3.17	3.31	−0.14
Plymouth	3.00	3.77	−0.77
Cadillac	2.72	2.67	+0.05
Mazda	2.31	1.61	+0.70
VW	1.88	1.59	+0.29
Subaru	1.80	1.36	+0.44
Lincoln	1.43	1.62	−0.19
Volvo	1.00	0.95	+0.05
Mercedes	0.89	0.84	+0.05
BMW	0.81	0.77	+0.04
Spectrum	0.74	—	—
AMC	0.73	1.39	−0.66
Audi	—	0.66	—
Other Imports	5.27	2.59	+2.68
Misc. Dom.	0.00	0.00	−0.00
TOTAL	3,489,146	3,424,125	

Based on new-car registrations from R. L. Polk & Co. Oklahoma from manufacturers' sales records.

TOP CARS

U.S. registrations for four months of 1986. Oklahoma numbers from manufacturers' sales records.

1986 Position		Make	1985 Position
1—	508,103	Chevrolet	500,060 — 1
2—	434,167	Ford	463,128 — 2
3—	336,845	Oldsmobile	334,465 — 3
4—	269,699	Pontiac	237,985 — 5
5—	234,822	Buick	277,189 — 4
6—	190,512	Honda	171,601 — 7
7—	171,065	Nissan	152,143 —10
8—	165,095	Toyota	152,694 — 9
9—	152,429	Mercury	175,654 — 6
10—	128,226	Dodge	156,543 — 8
11—	110,743	Chrysler	113,406 —12
12—	104,700	Plymouth	128,919 —11
13—	94,749	Cadillac	91,274 —13
14—	80,712	Mazda	55,148 —15
15—	65,674	VW	54,532 —16
16—	62,926	Subaru	46,579 —18
17—	49,071	Lincoln	55,372 —14
18—	34,695	Volvo	32,367 —19
19—	31,119	Mercedes	28,610 —20
20—	26,122	BMW	26,422 —21
21—	25,942	Spectrum	— —
22—	25,402	AMC	47,322 —17
—	—	Audi	22,658 —22
	183,666	Other Imports	99,985
	32	Misc. Dom.	69
	3,489,146	TOTAL	3,424,125

Automotive News analysis of new-car registrations based on R. L. Polk & Co. statistical report.

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Mazda net income drops 54 pct. for half

TOKYO — Mazda Motor Corp. reported that its ordinary income for the first six month of fiscal 1986 (November-April) declined 51.9 percent to $95.2 million from $198.0 million for the like period the year before.

Ordinary income is defined as income before income taxes and extraordinary items.

Net after-tax income totaled $40.8 million, down 54.7 percent from $90.2 million the year before. Revenues amounted to $4,983.4 million, up 11.0 percent over the previous year's $4,489.1 million, Mazda said.

Mazda attributed the profit decline to the rise in the yen's value against the U.S. dollar and other currencies, which eroded export profits.

Mazda said dollar equivalents were computed at 168.40 yen to the U.S. dollar, the exchange rate quoted on the Tokyo Foreign Exchange Market on April 30, 1986, the end of the first half of fiscal 1986.

Despite such problems as sluggish domestic demand and increased competition, total factory sales during the six-month period showed an 8.3 percent increase over the year before to 711,967 units, including 453,363 cars, up 6.1 percent, and 258,604 commercial vehicles, up 12.5 percent.

Exports increased 13.1 percent to 532,654 units, while domestic shipments to domestic dealers declined 3.7 percent to 179,313 units, Mazda said.

For the whole year, Mazda said it expects to suffer a foreign-exchange loss of $599.88 million if the yen's value averages 170 to the dollar.

Missouri, Oklahoma back CAFE rollback

By Helen Kahn
WASHINGTON BUREAU CHIEF

WASHINGTON — Missouri and Oklahoma have filed friend-of-the-court briefs supporting NHTSA in the case brought against the safety agency over its rollback of the 1986 passenger car Corporate Average Fuel Economy.

The CAFE standard was reduced from 27.5 mpg to 26 mpg for the 1986 model year.

Plaintiffs in the suit are Public Citizen, the Center for Auto Safety and other consumer groups.

The states said their interests in retaining the availability of big cars and smaller cars with big engines are not thus far represented.

That is despite the fact that the states of California and New York and the cities of New York, Chicago, Boston and Los Angeles have joined the plaintiffs and that the Automobile Importers of America, General Motors and Ford Motor Co. have intervened on NHTSA's side.

Chrysler Corp. recently filed a friend-of-the-court brief on the side of the plaintiffs.

One of NHTSA's reasons for the rollback was that GM and Ford said that the only way they could meet the 1986 fuel-economy standard would be to curtail production of certain big cars and the use of engines bigger than four cylinders.

Missouri, noting that it produces more cars than any state except Michigan, pointed to the Ford plant in St. Louis, which employs 2,500 workers and assembles the full-sized Ford Crown Victoria and Mercury Grand Marquis models.

In addition, a plant in Wentzville, Mo., employs 6,700 workers and makes Oldsmobile 98s and Buick Electras. Missouri added that it has another 5,200 citizens working in the nearby Fairfax, Kan., plant making full-sized Chevrolet Caprice, Pontiac Parisienne, Oldsmobile Delta 88 and Buick LeSabre models.

People in the middle of the nation, "particularly Missourians, need and want big American cars," Missouri said. It said that maintaining the 27.5- mpg standard "is likely to frustrate Missourians, whether through higher prices to purchasers or from product unavailability."

What Missouri failed to mention — obviously partly because Chrysler is on the other side — is that Chrysler has two plants in St. Louis. One makes its big eight-cylinder cars, Chrysler Fifth Avenue, Plymouth Gran Fury and Dodge Diplomat, which are expected to move to Kenosha, Wis., to be made by American Motors.

Oklahoma said it is one of the few states producing oil and thus knows the unpredictability of oil prices. Because of the recent drop in oil prices, Oklahoma faces a projected budget shortfall in excess of $450 million. Its unemployment rate is about 8 percent, about 0.5 percentage point higher than the national average.

One of its few "bright spots" is the GM Oklahoma City plant, which employs nearly 7,000 people making mid-sized Chevrolet Celebrity and Buick Century models. Nearly half of those cars have six-cylinder engines; to the extent that they use four-cylinder engines, GM will produce fewer cars in Oklahoma, the state said. While the layoffs may not be as extensive as in Missouri, "any cutbacks will cause egregious harm."

Oklahoma said that in addition to the direct economic impact, any shutdown will spill over onto industries related to automaking and can only lead to a higher national unemployment rate.

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Sunroof for Taurus and Sable
ASC Inc.'s Worldwide Product Group, Rancho Dominguez, Calif., is marketing an electric sunroof for the Ford Taurus and Mercury Sable.

AUCTION DATES

American Motors

July 8 — High Point Auto Auction, High Point, N.C.

July 9 — Columbus Fair Auto Auction, Columbus, Ohio

July 10 — Corry Auto Auction, Corry, Pa.; Evansville Auto Auction, Evansville, Ind.; and Minneapolis Northway Auto Auction, Shakopee, Minn.

July 11 — Floyd Hauhe Auto Auction, Bridgeton, Mo.

Chrysler Corp.

July 8 — Hatfield Auto Auction, Hatfield, Pa.; Aptco Auto Auction, Taylor, Mich.; and Arena Auto Auction, Chicago

July 9 — Butler Auto Auction, Gibsonia, Pa.; Sand Mountain Auto Auction, Boaz, Ala.; Minneapolis Auto Auction, Plymouth, Minn.; and Southwest Special 5th Ave. Sale, Phoenix, Ariz.

July 10 — Clanton's Auto Auction, Darlington, S.C., and Northway Exchange Auto Auction, Clifton Park, N.Y.

Ford Motor Co.

July 8 — Harrisonburg Auto Auction, Harrisonburg, Va.

July 9 — Metro Auto Auction of Kansas City, Lee's Summit, Mo., and Golden Gate Auto Auction, Fremont, Calif.

July 10 — Skyline Auto Exchange, Fairfield, N.J., and Nashville Auto Auction, Nashville, Tenn.

July 16 — Concord Auto Auction, Acton, Mass.

General Motors

July 8 — Dallas Auto Auction, Dallas

July 9 — Atlanta Auto Auction, Red Oak, Ga., and Hatfield Auto Auction, Hatfield, Pa.

July 10 — Aptco Auto Auction, Taylor, Mich., and Floyd Hauhe Auto Auction, Brideton, Mo.

July 15 — Denver Auto Auctio, Englewood, Colo.; Florida Auto Auction of Orlando, Ocoee, Fla.; and 166 Auto Auction, Springfield, Mo.

Used Car Sales
Auction Averages

June 1986	$5,194
Month ago	$5,165
Year ago	$5,268

Model Breakdown
Auction Averages

	JUN 1986	MAY 1986	APR 1986
1986	$12,183	$11,292	$11,490
1985	$8,558	$8,650	$8,803
1984	$6,342	$6,384	$6,363
1983	$5,530	$5,516	$5,515
1982	$4,363	$4,361	$4,308
1981	$3,422	$3,423	$3,458
1980	$2,561	$2,560	$2,516
1979	$2,172	$2,195	$2,199
Overall Average	$5,194	$5,143	$5,093

PRODUCTION

June output moves up

By Kathy Boyer
DETROIT REPORTER

Domestic auto production in June totaled 723,288, the highest for that month since 1979 when 826,678 cars were assembled.

The month's output was 4.05 percent more than May's 695,116 and 4.20 percent more than the year-ago month's 694,122.

Because of the holiday week and because all Ford Motor Co. plants except Dearborn were closed for vacation, last week's scheduled production of 103,967 cars dipped 40.83 percent from the previous week's 175,718.

Last week's output was 21.83 percent more than last year's holiday-week total of 85,337.

So far this year, 4,361,712 cars have been built, 3.01 percent below the 4,497,106 completed last year at this point.

Companies shared last week's production as follows: General Motors, 70.76 percent; Chrysler Motors, 20.58 percent; New United Motor Manufacturing Inc., 3.69 percent; Ford, 3.43 percent; and Volkswagen of America, 1.54 percent.

Nissan Motor Manufacturing Co.'s car line in Smyrna, Tenn., remains down for model changeover. American Motors' Kenosha, Wis., plant was idle for inventory adjustment last week.

Honda of America Manufacturing Inc.'s plant in Marysville, Ohio, resumes production today (July 7). Production had been halted for one week for plant maintenance.

Due to Independence Day, no Saturday overtime was scheduled at any assembly plant.

Canadian cars top 600,000

Canadian auto makers built their 600,000th car on Tuesday, July 1 — 24 days ahead of 1985.

So far this year, 611,453 cars have been built, 8.73 percent more than the 562,355 assembled last year at this time.

Production of 101,170 cars in June was 1.38 percent more than May's 99,792 and about even with (up 0.11 percent) the year-ago month's 101,054.

Output of both cars and trucks dipped last week due to plant closings on July 1 in observance of Canada Day.

Scheduled production of 19,805 cars last week was 19.36 below the previous week's 24,560 but 32.40 percent above the year-ago week's 14,958 — also a holiday week.

Truck output of 72,279 units in June was 6.49 percent below May's 77,301 and 5.66 percent below the year-ago month's 76,619.

Estimated production of 14,179 trucks last week was 14.39 percent below the previous week's 16,564 but 22.35 percent more than the year-ago week's 11,588.

Year-to-date, 489,578 trucks have been built, 3.31 percent more than the 473,878 assembled last year at this point.

June truck output steady

United States truck production of 315,435 units during June was 1.32 percent below May's 319,659, but it was 4.01 percent above the year-ago month's 303,360.

Due to the holiday, last week's output of 36,006 trucks fell 51.86 percent from the previous week's 74,803, but it was 39.27 percent more than the year-ago holiday week's 25,852.

Year-to-date, 1,888,212 units have been assembled, 3.98 percent more than the 1,815,929 trucks built at this time in 1985.

As previously reported, all Ford truck plants except Wayne, Mich., are closed until July 14 for vacation.

Because of the holiday, no Saturday (July 5) overtime was slated at any truck plant.

CANADIAN CAR	Week Ended July 5, 1986	Week Ended July 6, 1985	Week Ended June 28, 1986	June Total	Jan. 1 to July 6, 1986	Jan. 1 to July 5, 1985
AMERICAN MOTORS	0	0	0	0	5,493	2,405
FORD MOTOR	9,219	4,370	11,292	41,844	267,607	292,887
GENERAL MOTORS	10,406	10,408	13,043	55,606	283,699	310,430
VOLVO	180	180	225	720	5,550	5,731
Total Cars, Canada	19,805	14,958	24,560	101,170	562,355	611,453

U.S. TRUCK☆	Week Ended July 5, 1986	Week Ended July 6, 1985	Week Ended June 28, 1986	June Total	Jan. 1 to July 6, 1986	Jan. 1 to July 5, 1985
CHEVROLET	16,654	13,238	22,546	87,204	638,316	638,770
DODGE	3,400	3,333	4,061	17,050	113,627	37,592
FORD	1,790	0	29,140	121,795	626,183	755,430
GMC	5,022	4,662	7,547	29,912	193,492	189,518
NAVISTAR*	1,304	0	1,830	6,816	41,705	40,117
JEEP	2,900	3,545	3,718	15,352	110,966	98,650
NISSAN	3,056	0	3,821	16,836	53,286	57,385
AM GENERAL*	40	30	50	210	1,290	1,312
MISCELLANEOUS**	1,840	1,044	2,300	9,860	47,084	89,240
Total Trucks, U.S.	36,006	25,852	74,803	315,435	1,815,929	1,888,212

CANADIAN TRUCK	Week Ended July 5, 1986	Week Ended July 6, 1985	Week Ended June 28, 1986	June Total	Jan. 1 to July 6, 1986	Jan. 1 to July 5, 1985
AMERICAN MOTORS	708	0	883	3,548	0	13,963
CHRYSLER	5,607	6,960	6,277	33,811	222,504	222,519
FORD	2,880	0	3,447	14,289	89,320	92,788
GENERAL MOTORS	4,824	4,628	5,748	23,353	155,497	155,032
NAVISTAR	160	0	201	821	6,557	5,256
Total Trucks, Canada	14,179	11,588	16,564	72,279	473,878	489,578
N. American Trucks	50,185	37,440	91,367	387,714	2,289,807	2,377,790

☆—Includes window van production. *—Estimated.
**Also includes commercial poly. AM General includes government-declared vehicles.
Miscellaneous includes estimates for Mack, Volvo-White, Kenworth, Peterbilt, Freightliner, Mercedes-Benz, etc.
Monthly estimates may contain some of one or two units due to rounding.

U.S. CAR	Week Ended July 5, 1986	Week Ended July 6, 1985	Week Ended June 28, 1986	June Total	Jan. 1 to July 6, 1986	Jan. 1 to July 5, 1985
AMERICAN MOTORS	0	0	0	6,337	54,072	28,595
Renault Total	0	0	0	6,337	54,072	28,595
Alliance	0	0	0	5,786	32,928	25,329
Encore	0	0	0	551	21,144	3,266
CHRYSLER CORP.	21,400	23,995	30,641	126,696	746,572	741,048
Plymouth Total	5,500	6,691	8,850	40,317	215,489	219,790
Horizon	2,000	2,844	3,403	16,471	79,220	86,107
Sundance	100	0	318	1,131	0	1,140
Reliant	2,800	2,774	3,873	16,638	95,949	95,102
Caravelle	400	824	742	3,576	29,554	27,471
Gran Fury	200	449	514	2,499	10,766	9,970
Chrysler Total	6,100	8,362	9,064	37,256	244,486	241,323
LeBaron	1,200	1,754	2,392	9,292	56,144	61,291
LeBaron GTS	1,600	2,085	1,706	7,579	55,291	36,337
Laser	500	1,025	743	3,267	30,997	25,379
New Yorker/E-Class	1,000	1,277	1,447	5,990	40,558	46,830
Fifth Avenue	1,800	2,221	2,776	11,128	62,496	70,866
Dodge Total	9,800	8,942	12,727	49,123	282,597	279,935
Omni	2,500	2,308	3,971	13,002	78,925	81,396
Shadow	100	0	255	1,029	0	1,017
Aries	2,900	2,414	3,416	14,554	78,618	73,683
Daytona	700	966	1,103	4,768	28,031	28,325
Dodge 600	1,200	1,167	1,751	7,092	39,181	45,019
Lancer	1,800	1,387	1,003	4,423	39,523	30,842
Diplomat	700	680	1,228	4,255	19,319	19,653
FORD MOTOR	3,562	0	38,622	156,568	894,820	946,285
Ford Division	2,965	0	26,440	106,266	593,729	646,658
Escort	0	0	7,951	31,782	169,323	203,695
Mustang	2,965	0	3,786	15,567	94,796	103,873
LTD	0	0	0	0	117,707	0
Taurus	0	0	7,800	30,979	0	148,532
Thunderbird	0	0	3,045	11,499	102,270	84,965
Crown Victoria	0	0	0	0	7,122	0
EXP	0	0	0	0	3,838	0
Tempo	0	0	3,957	16,439	98,673	105,393
L-M Division	597	0	12,182	50,302	301,091	299,627
Mercury Total	597	0	8,541	35,644	215,853	205,721
Lynx	0	0	1,456	5,856	36,508	34,185
Capri	597	0	744	2,864	9,403	9,689
Marquis	0	0	0	0	89,146	0
Sable	0	0	2,021	9,114	0	84,258
Cougar	0	0	3,023	12,906	73,787	65,593
Grand Marquis	0	0	0	0	4,733	0
Topaz	0	0	1,297	5,119	30,276	31,796
Lincoln Total	0	0	3,641	14,668	85,238	93,906
Continental	0	0	400	1,823	14,519	10,578
Lincoln	0	0	2,738	11,003	61,288	70,446
Mark VI/VII	0	0	503	2,032	9,431	12,882
GENERAL MOTORS	73,573	58,510	95,910	387,800	2,640,330	2,384,490
Buick Total	15,083	12,878	19,497	76,272	534,112	420,126
Skylark (X-car)	0	0	0	0	40,953	0
Skyhawk	1,941	1,504	1,960	7,919	59,961	47,542
Somerset/Skylark	2,240	1,296	2,822	12,179	63,604	58,727
Century	3,851	3,544	5,036	21,083	139,187	132,963
Regal	1,649	1,770	2,235	9,358	64,958	36,032
LeSabre/Electra(rwd)	280	1,814	317	1,445	75,177	7,800
LeSabre (fwd)	3,523	0	5,030	17,384	0	71,333
Riviera	799	711	783	2,929	35,761	13,861
Electra(fwd)	795	2,437	1,233	5,975	54,491	52,166
Cadillac Total	4,870	4,150	8,178	34,796	195,131	161,074
Cimarron	332	322	644	2,655	15,389	14,861
Seville	659	439	674	2,700	20,808	11,805
Eldorado	659	860	673	2,719	39,130	13,259
Cadillac (rwd)	0	246	2,158	9,783	27,412	49,102
DeVille (fwd)	3,220	2,283	4,029	16,939	92,412	92,227
Chevrolet Total	18,603	17,276	26,283	107,391	906,204	737,913
Chevette	1,494	1,804	2,154	9,825	87,762	58,918
Cavalier	6,717	5,654	8,743	36,475	263,604	226,194
Celebrity	2,813	3,212	4,726	19,690	151,090	150,504
Camaro	3,219	3,056	4,117	14,642	125,545	109,019
Citation	0	0	0	0	28,699	0
Monte Carlo	1,736	1,189	2,325	9,115	76,612	60,577
Chevrolet	2,112	1,762	3,572	14,936	147,184	117,693
Corvette	512	599	646	2,708	23,577	15,008
Oldsmobile Total	19,777	14,341	22,167	91,723	650,296	592,547
Firenza	269	567	380	1,645	36,304	22,697
Cutlass Supreme	1,499	3,074	1,942	7,954	118,704	83,750
Cutlass Ciera	6,741	3,955	6,086	25,976	194,218	148,606
88 (rwd)	491	3,618	509	2,003	126,538	12,241
88 (fwd)	6,769	0	8,554	35,406	0	187,591
Olds 98	1,878	1,890	2,156	8,108	74,284	81,288
Calais	1,611	991	2,017	8,779	78,669	66,451
Toronado	521	426	541	2,180	21,569	9,945
Pontiac Total	15,340	9,865	19,855	75,618	554,587	452,800
Acadian**	0	173	647	1,754	7,095	10,656
2000 Sunbird	2,565	2,168	3,283	13,276	74,960	77,353
1000	668	486	1,304	2,493	16,246	19,157
Firebird	2,677	2,125	3,662	13,041	67,115	64,456
6000	2,604	1,138	3,308	13,792	25,096	82,009
Parisienne	1,060	1,298	1,605	4,041	39,189	38,547
Fiero	1,366	1,942	1,736	7,129	62,540	41,686
Grand Am	3,840	523	4,890	20,092	62,345	116,930
HONDA*	0	1,857	4,690	18,223	83,586	96,719
NISSAN	0	0	0	0	10,616	21,517
NUMMI*	3,832	975	3,832	19,160	14,732	95,172
VOLKSWAGEN	1,600	0	2,023	8,504	52,376	47,916
Total Cars, U.S.	103,957	85,337	175,718	723,298	4,497,106	4,361,712
Total Cars, Canada	19,805	14,958	24,560	101,170	562,355	611,453
N. American Cars	123,772	100,295	200,278	824,468	5,059,461	4,973,165
N. American Trucks	50,185	37,440	91,367	387,714	2,289,807	2,377,790
North American Cars and Trucks	173,957	137,735	291,645	1,212,172	7,349,268	7,350,955

*—Revised estimate. **—All Acadians are built for sale in Canada.
Monthly estimates may contain some of one or two units due to rounding.

Australian signs deal on engine

By Roger Rowand
ENGINEERING EDITOR

An Australian outfit that has been knocking on Detroit doors for years with an engine under its arm finally is making headway.

It has signed a long-term licensing agreement with Outboard Marine Corp. for manufacturing its unusual power plant.

Orbital Engine Co., Perth, is the developer of a lightweight engine for which it makes claims of dramatically improved fuel economy, reduced emissions and smooth running.

The orbital system is based on pneumatric atomization of direct-injected fuel.

Ralph Sarich, 46-year-old self-taught engineer and the engine's inventor, said the OMC contract could launch the engine's push into automotive applications.

OMC, of Waukegan, Ill., is one of the world's largest makers of outboard boat motors. Its nameplates include Evinrude and Johnson.

OEC is owned jointly by Sarich Technologies Trust, whose Ralph Sarich invented the engine and the OEC fuel systems, and BHP (formerly Broken Hill Proprietary Ltd.), a widely diversified mining and manufacturing company which is Australia's major steel producer.

Orbital Engine also recently launched a jointly owned development venture with Walbro Corp., Cass City, Mich., primarily a maker of small-engine carburetors. That agreement involves development of OEC fuel delivery systems.

In recent years, Walbro has become an automotive supplier with such things as throttle bodies for Buick Motor Division and electric fuel pumps used with injection systems to Ford Motor Co. and Chrysler Corp.

If production were to start, there would be royalty payments to the Australian concern, Outboard Marine attorney Warren Comstock said. He declined to describe them. The Australian press, however, pegged royalties at $25 to $50 per engine, depending on size.

Strike looms, GM kills order

General Motors has canceled steel shipments from U.S. Steel for August and has appointed other steel companies to fill those orders.

GM's move was taken because U.S. Steel faces an Aug. 1 strike deadline with the steelworkers union.

"We must protect ourselves so we have steel to begin the production of new models," a GM spokesman said. GM uses eight or nine steel suppliers.

GM said the diversion of orders to other domestic steel mills was for August only.

Meanwhile, Ford Motor Co. has asked U.S. Steel to supply the automaker with 30 days more than its usual inventory of steel.

Ford said it would continue to assess the "the probability of a strike at U.S. Steel, including its duration and whether or not that would affect September availability of steel."

Chrysler Corp. said it does not comment on dealings with its suppliers. However, sources say Chrysler has stockpiled at least 30 days' worth in case of a strike.